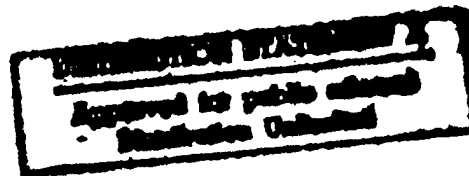


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USSR Report

AGRICULTURE

No. 1357



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3 November 1982

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MAJOR CROP PROGRESS AND WEATHER REPORTING

WIDESPREAD CULTIVATION OF RAPE FOR ANIMAL HUSBANDRY URGED

Moscow SEL'SKAYA ZHIZN' in Russian 18 Aug 82 p 2

/Article by N. Milashchenko, general director of the Kolos Scientific Production Association, academician of the All-Union Academy of Agricultural Sciences imeni V. I. Lenin, Omsk: "Storeroom of Oil and Protein"

/Text A prominent place in the food program is assigned to an increase in the production of vegetable oil raw materials. This is not accidental. Heightened interest in vegetable oil is observed in the world. The demand for fat of animal origin decreases. Economists, dietologists and physicians attribute this not only to the desire to save land, material and labor resources, but also to the fact that man wants to reduce the content of cholesterol, which is one of the causes of the increase in cardiovascular diseases, in food.

The meal of oil crops is also the most important source of protein in feed production. For example, in the United States the cakes and meals of such crops make up 85 percent of all the high-protein feed resources. Their utilization eliminates the shortage of protein and enables farmers to save more than 50 million tons of fodder grain.

Owing to agroclimatic conditions, in our country the area of distribution of soybeans and sunflower seeds (leading oil crops in the USSR) is very limited. Substantiated calculations by specialists show that an extreme saturation of crop rotation arable land with sunflower seeds and soybeans in favorable agroclimatic zones does not make it possible to establish the necessary raw material base for the production of vegetable oil and feed protein in volumes meeting the needs of the national economy.

At the same time, in the country there are vast agricultural zones in temperate latitudes favorable for the cultivation of rape and field cabbage. Therefore, the development of scientific principles for the mastering of the rape crop is the most important task of scientists. By expanding rape areas, it is possible to solve the problem of vegetable oil in the country in a short time and to eliminate the shortage of feed protein in animal husbandry. With the same feed, but balanced in terms of protein, it is possible to greatly increase milk and meat production.

Spring rape and field cabbage can occupy significant areas in West and East Siberia, in North Kazakhstan and in a number of other regions in the country. In Siberia and Kazakhstan the maximum precipitation in July characteristic of these

regions is favorable for the development of rape. Here rape does not compete with sunflower seeds, but supplements them, having a number of advantages in organizational, agrotechnical and economic terms. The equipment designed for grain crops is suitable for its cultivation. The domestic industry produces the necessary assortment of toxic chemicals for the control of rape pests and diseases.

The available practical experience in rape cultivation in Siberia and North Kazakhstan confirms everything that has been said. On state strain testing plots and ordinary farms a rape seed harvest of 12 to 15 quintals per hectare is considered ordinary. A total of 15 to 20 quintals of seeds per hectare have been stably obtained at the Siberian Station of Oil Crops (Isilkulskiy Rayon, Omsk Oblast) and at the Siberian Scientific Research Institute of Agriculture in the last few years.

About 500 units of water per unit of weight of the dry substance of rape are used. This is almost as much as spring grain cereals need. Therefore, its yield should be closer to the level of grain crops. True, rape needs twice as much nitrogen and it should be more carefully protected against pests and diseases.

An average seed yield of 12 quintals per hectare is fully attainable in the region at the present level of agrotechnology. With such a yield each hectare produces 4.1 quintals of vegetable oil of the olive type valued at 291 rubles and 6.7 quintals of meal. The output of protein per hectare of rape is 245 kg and the production cost of 1 ton of protein (at the sale price of 87 rubles per ton of meal) is 238 rubles and, when rape is processed into oil on a farm, only 35.6 rubles. Let us compare: In existing rations 1 ton of protein costs 700 to 900 rubles.

One tone of rape meal makes it possible to balance 8 tons of mixed feed, increasing the content of digestible protein in a fodder unit from 81 to 110 grams. Such a share of meal is permissible in the rations of all types of animals.

Rape is of tremendous interest not only as a source of oil and meal, but also as green fodder. It is capable of accumulating a biological mass at an average daily above-zero temperature of 5 to 6 degrees, whereas spring grain crops stop their development at 12 to 13 degrees. For example, under the conditions of Omsk Oblast they complete their vegetation in the middle of September, while rape continues to accumulate its mass even in October.

Therefore, it is more productive than annual grass sown in summer. In Omsk Oblast in 1978-1980, when sown independently, it produced 97.2 quintals of green mass per hectare and, when sown after the harvest, 91.6 quintals. Under the same conditions rape ensured a yield of 150 quintals of mass. In terms of fodder units this is 8 to 9 quintals more.

Such a valuable characteristic of rape should be widely utilized for the production of green mass in late fall with the precipitation of the second half of summer and fall, "prolonging" the green conveyor in fall by 40 to 45 days. The experience of the Pokrovskiy Sovkhoz, the Mayak Sovkhoz, the Omskoye Experimental Model Farm and the Novoural'skoye Experimental Model Farm in Omsk Oblast indicates that, by feeding cows with rape, it is possible to preserve the level of September milk yields until the middle of November, thereby greatly increasing the annual production of this product.

The green mass of rape can be frozen and silage and haylage can be prepared from it. The production cost of 1 quintal of digestible protein in annual grass is 413 rubles and in the green mass of rape, 312.

A study of various theoretical models of the solution of the problem of feed protein, using Omsk Oblast as an example, has shown that the mastering of the rape crop in a full volume is the most economically advisable way of solving a number of problems. This way is feasible at the attained level of capital investments.

Taking this into consideration, scientists at the Siberian Scientific Research Institute of Agriculture and the entire collective of the Kolos Scientific Production Association have embarked on the realization of an overall program for the development of the scientific principles for the mastering of the rape crop. When this program is realized, the oblast will be able to obtain 28.4 percent of the feed protein and 19.9 percent of the fodder units in terms of their planned increase during the 11th Five-Year Plan. Thereby, the shortage of feed protein in animal husbandry will be eliminated. Furthermore, a great deal of vegetable oil can be sold to the state.

However, it should be kept in mind that the mastering of the new crop will require a number of measures. There is a need to organize selection and seed breeding (this problem is solved successfully by the Siberian Station of Oil Crops), to refine the technology of rape cultivation throughout zones for seeds and green fodder, to teach personnel the methods of cultivation of this valuable crop and to develop measures of pest, disease and weed control.

The yield of rape depends on the level of its provision with nitrogen. Therefore, nitrogen and other fertilizers should be especially allocated for it. The shortage of the appropriate warehouse premises and equipment for the processing of seeds and other raw materials must be eliminated. It should be stated that we do not have an oil extracting industry for these purposes. Omsk Oblast alone needs oil presses with a daily productivity of 1,200 tons.

In order to introduce rape, it will be necessary to revise the structure of sown areas and the plans for the sale of products to the state. However, the assumed additional difficulties can be overcome in a short time through the joint efforts of party, Soviet and agricultural bodies and scientists. This will become a major qualitative and quantitative shift in agricultural production. With minimal investments it is possible to solve the problem of feed protein in animal husbandry in order to increase milk and meat production. At the same time, the problem of vegetable oil in the country will be solved.

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CSO: 1824/543

LIVESTOCK

UKRAINIAN PLENUM REPORT ON LIVESTOCK PRODUCTION, DEVELOPMENT

Kiev PRAVDA UKRAINY in Russian 29 Jun 82 p 2

/Report on the Plenum of the Central Committee of the Communist Party of the Ukraine: "Animal Husbandry Is a Shock Front"/

/Excerpts/ The Plenum of the Central Committee of the Communist Party of the Ukraine held a few days ago examined the problem of the results of the May (1982) Plenum of the CPSU Central Committee and of the tasks of the republic party organization resulting from its decisions and Comrade L. I. Brezhnev's report "On the USSR Food Program for the Period Until 1990 and Measures for its Realization." Comrade V. V. Shcherbitskiy, member of the Politburo of the CPSU Central Committee, first secretary of the Central Committee of the Communist Party of the Ukraine, made a report. An important place in his speech, along with task No 1, that is, increase in gross grain output, was assigned to problems concerning the further development of animal husbandry. This sector is called upon to contribute to a decisive degree to the successful attainment of the goal set by the party, that is, to ensure a stable supply of all types of foodstuffs in the shortest possible time, to greatly improve the structure of nutrition of the Soviet people at the expense of the most valuable products and to more fully meet the demand for meat and dairy products.

This page discusses the level attained by this sector, what its workers will have to do during the next two 5-year periods and what paths they will follow toward the envisaged goals.

From Achievements to New Heights

The truly historical transformations that took place in the country's agricultural production in the last 15 years were the direct results of the successful implementation of the party's modern agrarian policy. The correctness of this policy based on the principles of the March (1965) Plenum of the CPSU Central Committee and developed by a number of subsequent plenums and the 24th-26th CPSU Congresses is also well exemplified by the Ukrainian SSR.

"Despite the fact that the republic's agriculture was often subjected to the most severe tests, especially in the last 3 years in succession," Comrade V. V. Shcherbitskiy noted at the June Plenum of the Central Committee of the Communist Party

of the Ukraine, "the average annual gross output of this sector increased from 19.5 billion rubles during the 7th Five-Year Plan to 28.5 billion rubles during the 10th Five-Year Plan, or by 47 percent. Labor productivity almost doubled during that time."

The following figures also point to the scale of the transformations that took place in the republic's agricultural production:

The power-worker ratio increased 3.5-fold;

the consumption of electric power increased 4.2-fold;

the areas of irrigated and drained land expanded 2.5-fold.

In accordance with the correct and profoundly scientific agrarian policy of the party specialization and concentration of production, interfarm cooperation and agroindustrial integration are widely developing in the republic. New sectors, for example, such as machine building for animal husbandry and feed production and the mixed feed and microbiological industry, have also been established.

The rates of growth of animal husbandry can be judged from the production of the following types of products:

On the Average in a Year--Million Tons

Products	1961-1965	1976-1980	Growth in %
Meat (live weight)	3.3	5.1	156
Milk	14.5	21.8	150
Eggs--million	7.2	13.5	187

The diagram depicting the growth of production of the basic types of livestock products per 100 hectares of land during the same period can also serve as a convincing illustration of how animal husbandry developed progressively.

The fact that the production of agricultural products, including of the most valuable ones--livestock products--systematically outstripped the population growth is the distinctive feature of the last three five-year plans.

In brief, after the March Plenum of the CPSU Central Committee animal husbandry took a significant forward step. However, what has been achieved is not enough today. The Plenum of the CPSU Central Committee noted that the rates of increase in agricultural production were slowed down in the last few years. In order to eliminate the difficulties and disproportions that occurred and to increase the efficiency of agricultural production, in accordance with the principles of the 26th CPSU Congress the party took efficient large-scale measures and developed the country's food program.

One of the main tasks put forward in the program, along with meeting the population's demand for bread and flour products, hulled and rolled products, eggs, fish, potatoes and sugar, is to improve the supply of meat, milk and fruit and vegetable products during this 11th Five-Year Plan. During the 12th Five-Year Plan main emphasis should be placed on increasing the consumption of meat, vegetable oil and basic types of vegetables and fruits even more.

Animal husbandry workers are called upon to make an important contribution to the successful implementation of what has been envisaged. This sector, like other spheres of agricultural production, will take a significant forward step in our republic.

For example, the average annual production of meat in carcass weight will be 3.9 to 4.1 million tons during the 11th Five-Year Plan and 4.6 to 4.7 million tons during the 12th Five-Year Plan.

In accordance with the food program the supply of milk and dairy products for the population should be improved greatly. Their annual per-capita consumption will reach 330 to 340 kg by the end of the 12th Five-Year Plan. The workers of dairy farms in our republic are also called upon to make a weighty contribution to the attainment of the envisaged indicators. The average annual production of milk is to be raised to the level showed in the diagram.

The goals envisaged in the republic are high and it will not be easy to undertake them. However, what has been envisaged must be attained without fail, because this is necessary for a regular supply of food for the population.

At the same time, oblast, party and Soviet bodies must proceed from the fundamental principle to the effect that every oblast must not only fulfill its obligations to the state, but also to maximally meet its needs for locally produced products. In this connection the Plenum of the Central Committee of the Communist Party of the Ukraine put forward the following task: In the next few years to stop completely or to minimize the delivery, along with early potatoes, of most vegetable and fruit-berry crops, whole milk products and, as a rule, meat from outside the oblast.

We Name the Addresses of Experience

Workers on many farms in the republic respond to Comrade L. I. Brezhnev's words of appeal to the effect that animal husbandry is now a shock front in rural areas, words heard at the tribune of the 26th party congress, with specific weighty deeds.

Agricultural workers in Cherkassy Oblast, whose obligations for an increase in the production and sale of livestock products to the state during the 11th Five-Year Plan were approved by the CPSU Central Committee, show a good example, which deserves to be followed.

How the people of Cherkassy Oblast keep their word can be judged by the following example. On the eve of the elections to local soviets livestock breeders in Chigirinskiy Rayon reported the following: The semiannual plan for the sale of milk, meat and eggs to the state was fulfilled!

* * *

The following figures were cited by Comrade V. V. Shcherbitskiy in his report at the June Plenum of the Central Committee of the Communist Party of the Ukraine:

In 5 months the daily weight gains in feeder large-horned cattle in the oblast were 627 grams and its delivery weight, 415 kg. Almost 1,000 kg of milk per cow were obtained. As a result, the purchases of meat were increased by 8 percent, of eggs, by 4 percent and of milk, by 1 percent.

The work of livestock breeders in Chernigov Oblast and the Crimea also received a high party rating at the plenum.

In accordance with the policy of concentration and specialization of agricultural production outlined by the party large animal husbandry complexes and specialized farms were established in the republic in the last few years. Where there was proper concern for their utilization and for an efficient expenditure of feed, there are results.

Comrade V. V. Shcherbitskiy mentioned the Beliki Enterprise for the Fattening of Large-Horned Cattle in Poltava Oblast as an example of the efficient operation of interfarm enterprises and associations. About 16 million rubles of profit were obtained there in the last 3 years alone. The Linovitsa Enterprise in Chernigov Oblast, the Dunayevtsy Enterprise in Khmel'nitskiy Oblast and the Izmail Enterprise in Odessa Oblast show good stable results.

Does the experience of the Crimean people not deserve attention? Installations for the thermochemical treatment of straw, centers for the initial processing of milk and dairy units were established on the overwhelming majority of farms in the oblast.

Advanced experience can be found in every oblast and in every natural-climatic zone in the republic. Let us take such a problem as the profitability of animal husbandry. The practice of advanced farms shows that, when affairs are managed skillfully, this sector can be highly profitable. Year after year it yields high income in Bershadskiy Rayon, Vinnitsa Oblast, in Pokrovskiy Rayon, Dnepropetrovsk Oblast, in Marinskii Rayon, Donetsk Oblast, in Gulyaypolskiy Rayon, Zaporozhye Oblast, in Obukhovskiy Rayon, Kiev Oblast, in Krasnogvardeyskiy Rayon, Crimean Oblast, in Stryyskiy Rayon, Lvov Oblast, in Ochakovskiy Rayon, Nikolayev Oblast, in Orzhitskiy Rayon, Poltava Oblast, in Gussyatinskiy Rayon, Ternopol Oblast, in Prilukskiy Rayon, Chernigov Oblast and in a number of other rayons in the republic.

A skillful organization of production, a strict policy of economy and an intensive utilization of livestock are the main factors working for an increase in the sector's efficiency here.

Extensive work in the republic is done for a full transformation of feed production into an independent sector. Here too there are many addresses of good experience. This task has been accomplished quite well in Chernigov, Ternopol and Kherson Oblasts and has been solved successfully in Kirovograd Oblast recently. The duty of local party and agricultural bodies is to seriously see to it that the most valuable and instructive experience that has been accumulated here becomes available to every oblast, rayon and farm.

Young people are capable of great feats. That is why Comrade V. V. Shcherbitskiy's words to the effect that the initiative of the Komsomol concerning patronage over animal husbandry must be supported in every possible way sounded as a party order at the June Plenum of the Central Committee of the Communist Party of the Ukraine.

Intensification Is the Key Path

Speaking at the May Plenum of the CPSU Central Committee, Comrade L. I. Brezhnev stressed that the key to the efficiency of agriculture lies in production intensification. This decisive factor in animal husbandry, as in other sectors, is put in the forefront.

If this demand as applied to the Ukrainian SSR is translated into the language of figures following from the country's food program, the specific task appears as follows: By the end of this five-year plan milk yields per cow must be increased by a minimum of 400 kg. By 1990 they should be increased by another 300 kg.

How the average annual milk yield per cow throughout the republic will rise can be seen from the diagram.

Growth of Meat and Milk Production per 100 Hectares of Land in the Republic After the March (1965) Plenum of the CPSU Central Committee

Years	Meat (quintals)	Milk (quintals)
1961-1965	11	341
1976-1980	124	517

Average Annual Volumes of Milk Production During the Period Until 1990

Period	Million tons
11th Five-Year Plan	22.5-23
12th Five-Year Plan	24-24.4

Increase in Milk Yields per Cow During the 11th and 12th Five-Year Plans

Period	kg
11th Five-Year Plan	2700
12th Five-Year Plan	3000

The May Plenum clearly determined the ways of attaining the outlined goals. They are primarily an improvement in the qualitative composition of stock and in pedigree work and the raising of animals of highly productive breeds.

We still have farms where the productivity of livestock is high, but its population is insufficient. Therefore, it is first of all necessary to see to it that the stock of the dairy herd is increased and, at the same time, to improve the productive qualities of animals. Where the density of livestock is quite high, main emphasis should be placed on herd improvement.

The June Plenum of the Central Committee of the Communist Party of the Ukraine noted that kolkhoz and sovkhoz managers and specialists and local agricultural bodies should have the final word in these matters. They also must manifest maximum efficiency, persistence and a creative approach in the matter of increase in meat resources.

An increase in beef production remains the basic direction here with due regard for the feed structure. To increase the delivery weight of livestock to 400 or 500 kg-- this task is set in the food program. Its successful accomplishment will require a widespread application of intensive methods of fattening and a significant increase in weight gains. These are the decisive factors in the shortening of fattening periods. "Therefore," it was pointed out at the June Plenum of the Central Committee of the Communist Party of the Ukraine, "it is necessary to more rapidly transfer meat production to a specialized basis, relieving dairy farms of the young stock they do not need. It is also necessary to continue the work on the development of the breeding herd of beef cattle breeds. Nor should attention to such early maturing sectors as hog raising and meat poultry breeding be weakened. The possibilities of sheep and rabbit raising should also be utilized fully."

The strengthening of the feed base is the key task advanced by life itself. "In this respect," Comrade L. I. Brezhnev stressed, "this five-year plan in large measure should become the five-year plan of feed." This demand will also be equally urgent during the 12th Five-Year Plan.

In accordance with the food program the production of all types of feed is to be increased 1.3- to 1.4-fold in our republic. That is, in 1985 we should obtain 91 million tons of fodder units on kolkhozes and sovkhozes and in 1990, more than 100 million tons. For the sake of comparison we will point out that during the 10th Five-Year Plan the level of their production was 73 million tons.

Solving the large-scale problems of increase in feed production, principal attention must be concentrated on feed quality. Now, owing to the fact that feed often is not balanced, especially in terms of protein, and is fed without the proper preparation, part of the feed resources, including grain fodder, are not used efficiently. Therefore, in accordance with the principles of the 26th Congress of the Communist Party of the Ukraine it is necessary to fully implement measures for an increase in the production of feed protein and to augment the capacities of the mixed feed industry and the output of high-grade mixed feed.

In this connection an increase in the gross output of fodder crops is of utmost importance. During this five-year plan the production of corn grain will have to be increased to 8 or 10 million tons, in other words, doubled. No less than 7 to 7.5 million tons of grain must be obtained this year.

The cultivation of barley, oats and pulse crops also requires much attention. Problems connected with the establishment of a firm and stable feed base must be solved in an overall manner with due regard for the maximum utilization of local conditions and possibilities.

An overall plan for the development of feed production, where specific directions and volumes of work on the solution of the feed problem have been determined, has been worked out and is being implemented in the republic.

This main direction of the sector, as well as of all agriculture, also sets responsible tasks for science. Our potential is quite high here. Its leading forces must be concentrated, along with plant growing problems, on such fundamental problems as the raising and introduction of highly productive breeds, types and lines of animals, development of efficient feeding systems and so forth.

The workers of associations and enterprises producing sets of equipment for feed preparation should stand in one formation with livestock breeders. The collectives of microbiological industry enterprises will also have to do a great deal. They should better provide the sector with protein preparations, amino acids, enzymes, feed vitamins and antibiotics.

The entire spectrum of problems, which science and the enterprises of the agroindustrial complex connected with animal husbandry must solve, should be considered the social order of the party and of the entire Soviet nation.

There Are Potentials Everywhere

The maximum intensification of animal husbandry can be attained only provided all potentials are utilized most fully. They are everywhere.

Feed production should be taken as the sector's main basis. Last year the Plenum of the Central Committee of the Communist Party of the Ukraine, examining the problem "On the Work of Party, Soviet and Economic Bodies in the Republic on the Fulfillment of the Decisions of the 26th CPSU Congress Concerning the Further Development of Animal Husbandry," pointed out the ways of increasing the production of feed resources.

First of all, in every oblast, rayon and farm it is necessary to carry out work on an improvement in the structure of sowings in the direction of an expansion of the areas of grain fodder crops, perennial grass, multicomponent mixtures and fodder sugar beets.

It is necessary to greatly increase the yield of fodder crops and the productivity of meadows and pastures. Here the possibilities are by no means fully utilized.

An improvement in the quality of feed and a reduction in its losses during storage should also be considered an important potential for the attainment of a high final result.

The task of efficient fodder utilization is no less urgent. It is necessary to attain a situation in which every kolkhoz and sovkhoz considers all procured feed raw materials requiring a careful preparation for feeding.

The "sakhar" /sugar/ overall scientific and technical object program has been approved and is being implemented in the republic. Its successful realization will make it possible not only to increase the production of this valuable food product, but also to greatly replenish the fodder resources of public animal husbandry.

A great deal will have to be done to improve the production of seeds, especially of fodder crops and perennial grass.

Many potentials, including those that are within easy reach, as the saying goes, also exist directly in animal husbandry. Comrade V. V. Shcherbitskiy pointed out at the June Plenum of the Central Committee of the Communist Party of the Ukraine that many farms in their chase after a large livestock population kept a significant number of old unproductive cows and did not properly organize zootechnical and veterinary services.

Chernovitsy Oblast, where in the last few years the introduction of first heifers into the herd was reduced considerably and the population of purebred livestock decreased, was cited in confirmation of the above stated. As a result, less than 2,600 kg of milk per cow are now obtained in the oblast, where 3,000 kg were obtained not so long ago. For the same reasons Kiev Oblast is surrendering its positions.

The following example was also cited at the plenum. During the last two five-plans 5.6 billion rubles were invested in the construction of large animal husbandry complexes and specialized farms and in their equipment. Often, however, these production capacities are utilized extremely poorly. Dairy complexes in Chernovitsy and Volyn Oblasts, complexes for beef production in Kirovograd and Kherson Oblasts and complexes for pork production in Vinnitsa and Sumy Oblasts do not give the proper yield. On the average, in the republic the capabilities of complexes are by no means fully utilized. To give them the planned load and to introduce the achievements of innovators and the latest scientific recommendations at each one means to greatly increase meat and milk production.

The serious measures envisaged by the CPSU Central Committee and the USSR Council of Ministers for an improvement in the economic situation in rural areas are also to contribute to the further advance of animal husbandry.

All this will contribute to the further activation of rural workers for the fulfillment of the plans envisaged by the party and for the search for new potentials.

"To be sure, we are all unanimous in our opinion," Comrade L. I. Brezhnev said at the May Plenum of the CPSU Central Committee, "that the food program should yield its first fruits as early as this year. This places increased demands on the entire cycle of operations in agriculture and in the entire agroindustrial complex."

The Ukraine is entering the reaping season. Paying paramount attention to our main wealth--grain--we must not lose sight of problems of feed procurement and increase in the productivity of the public herd even for a moment.

Summer is a busy time on the shock front!

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CSO: 1824/521

AGRO-ECONOMICS AND ORGANIZATION

COUNTRY'S STATE OFFICIAL DISCUSSES MAJOR FOOD PROGRAM GOALS

Moscow PARTIYNAYA ZHIZN' in Russian No 13, Jul 82 pp 20-29

[Article by Z. Nuriyev, deputy chairman of the USSR Council of Ministers, chairman of the presidium of the USSR Council of Ministers for questions of the agro-industrial complex: "An Important State Matter"]

[Text] United around the Communist Party, the Soviet people are engaged in peaceful creative labor. Outstanding successes have been achieved in the main sphere of their activity--the economy. Our country now has highly developed productive forces, a powerful industry, and extensive agricultural production. The economic and scientific-technical potential that has been created makes it possible to solve new large-scale problems.

Pursuing a noble goal--everything on behalf of man, everything for the good of man--the 26th CPSU Congress placed in the foreground of the Party's economic policy the task of improving the supply of food products for the population as quickly as possible. In order to carry out this task, on the initiative of General Secretary of the CPSU Central Committee, Chairman of the Presidium of the USSR Supreme Soviet, Comrade L. I. Brezhnev and under his direct guidance, the USSR Food Program for the period up to 1990 was developed.

All aspects of the program were considered at the May (1982) Plenum of the CPSU Central Committee. There L. I. Brezhnev gave a fact-filled, profoundly substantiated report. He analyzed in detail the condition of the country's agro-industrial complex, and revealed the main directions for its further development as well as ways and means of solving the food problem. The report is a large contribution to the theory of the Leninist agrarian policy and to the practice of communist construction.

The Plenum fully approved the proposals and conclusions contained in the report, and placed them at the basis of the practical activity of Party, Soviet and economic agencies as well as trade union and consumer organizations for implementing the Food Program. It also approved the decrees of the Central Committee Politbureau, the CPSU Central Committee and the USSR Council of Ministers regarding the most important problems in the development of the agro-industrial complex.

Each line of the Plenum's documents is imbued with Leninist concern for mankind. The Plenum's resolutions, reflecting the continuity of the CPSU economic strategy, concretized the methods and directions of the implementation of this party line with respect to today's conditions.

The historic significance of the May (1982) Plenum of the Central Committee consists in that it developed a complex of scientifically substantiated, balanced measures which direct almost all branches of the national economy, all republics, krais, oblasts and rayons, the kolkhozes and sovkhozes, enterprises and organizations and each Soviet man to the task of reliably providing the country with food products. This is not only a primary economic task, but also a crucial socio-political task.

The development of our society at the end of the twentieth century, on the threshold of the third millenium will depend largely on how the food problem is solved. And these are not simply words. We are speaking about a major task--the creation of a reliable food supply, further improvement of the well-being of the Soviet people and an important sphere of material production. Here it is appropriate to recall the words of V. R. Lenin: "no socialist country is possible, as a state ruled by the workers and peasants, if, through the joint efforts of the workers and peasants, it cannot create a food supply that will provide nutrition for workers employed in industry . . . the real basis of the state is the food supply . . . without it, state power is nothing. Without this supply, the socialist policy remains only a wish" ("Collected Works" Vol 42, p 150). Lenin made this large and strong statement at the dawn of Soviet power, but it has not lost its significance even in our day.

The scope of today's food industry in the ASSR is characterized by the following figures. The agro-industrial complex now has considerable production capital and employs 40 percent of the workers. Expenditures of resources formed in industry on the production of agricultural products have now reached almost 60 percent.

The sphere of the agro-industrial complex creates a significant part of the global social product and about 42 percent of the national income. The formation of the consumption fund depends on the level of development of its productive forces. The final product of this complex, which is based on agricultural production, constitutes three-fourths of the retail commodity turnover and, consequently, is of decisive significance for the provision of monetary incomes for the population.

Consistently following the course of the modern agrarian policy, which was drawn up at the March (1965) Plenum of the Central Committee and developed at subsequent plenums and by the 24th-26th CPSU Congresses, the Party has resolved a large number of problems relating to further advancing agricultural production. During past years capital investments in the agrarian sector of the economy have increased considerably, which made it possible to accelerate and qualitatively renew its production potential. Under the 8th, 9th and 10th Five-Year Plans about 500,000,000 ruble' worth of capital investemtns were used for strengthening the main branches of the agro-industrial complex.

This made it possible to expand considerably the capacities of the country's branches that provide agriculture with means of production. The production of mineral fertilizers, tractors and agricultural machinery increased. A specialized branch was created from the beginning for producing equipment for animal husbandry. The manufacture of sets of technological equipment for the food branches of industry was increased. The capabilities of rural construction organizations, the mixed feed industry and the micro-biological industry were significantly expanded. Much

was also done to develop the material and technical base of the USSR Ministry of Land Reclamation and Water Resources and the USSR Goskomsel'khoztekhnika.

All this had a favorable effect on increasing the productive forces of agriculture. Fixed capital in this branch increased 3.5-fold, the energy availability for labor and the delivery of mineral fertilizers--3-fold, and the area of irrigated and drained land--1.7-fold. During this period the material base for branches related to the procurement, storage and processing of agricultural products was significantly strengthened. Production capital of the food branches of industry increased 2.7-fold.

Measures taken by the Party and government made it possible to increase the average annual production of agricultural products from 82.8 billion rubles under the 7th Five-Year Plan to 123.9 billion rubles under the 10th Five-Year Plan or by 50 percent. While the country's population increased by 35 million, the per capita consumption of meat and meat products increased by 41 percent, milk and dairy products--by 25 percent, and sugar--by 30 percent.

Of course, a good deal has been done. But the present condition of food production in the country does not satisfy the growing demands for a number of food products. It is known that we are not yet fully satisfying the demand for meat and dairy products and a number of kinds of vegetables and fruits are in short supply. There are many reasons why the demand for food products outstrips the growth of their production.

This is brought about primarily by the more rapid increase in monetary incomes of the population while retail prices of food products remain stable, so that the purchasing capability of the population outstrips the increase in the production of agricultural products. This is also brought about by the reduction of the number of people who are directly employed in the agrarian sector of the economy and the relatively more rapid growth of urban population. This situation is also affected by the fact that the efficiency of agricultural production is not increasing rapidly enough, the agro-industrial complex is not fully supplied with material and technical means, there are disproportions in its development, and the kolkhozes and sovkhozes are not sufficiently economically motivated to increase the production of food products.

Taking all these factors into account, the Food Program was developed and approved by the May (1982) Plenum of the Central Committee.

The Food Program envisions, under the 12th Five-Year Plan, increasing gross grain production to 250-255 million tons as against 205 million tons under the 10th Five-Year Plan, meat--to 20-20.5 million tons as against 14.8 million tons, and milk--to 104-106 million tons as against 92.7 million tons under the last Five-Year Plan. We shall rely mainly on increasing the production of meat and dairy products, vegetable fats, fruits and heat-loving kinds of vegetables.

One must say directly that the tasks set for agriculture and the entire agro-industrial complex are extremely difficult. During the 1980's it will be necessary to provide for very large increases in the production of all kinds of food.

First of all it will be necessary to strengthen our grain farming and make it more stable and more productive. To do this it is necessary to improve the structure of the planted areas, to advance the overall science of farming, to increase the return from mineral and organic fertilizers, to advance selection work and seed growing, to provide for a changeover to scientifically substantiated systems of farming, and to reduce the time periods for conducting field work, especially harvesting work.

The possibilities of expanding the areas planted in grain crops decrease each year. The main condition for increasing grain productions, what with the stailization of the planted areas, will be increased productivity everywhere. During the decade it is planned to increase yields by 6-7 quintals per hectare so that by 1990 they will amount to 21-22 quintals per hectare. In order to achieve this it is necessary to conduct a large amount of purposive work in republics and regions of the country. There is to be a steady growth of the gross yields of high-quality grain of durum and strong strains of wheat on the farms of Kazakhstan, the Northern Caucasus, the Volga area, the steppe regions of the Ural area and Siberia as well as the southern regions of the Ukraine.

In the nonchernozem zone of the RSFSR, the Volga area, the forest area of the Ukraine, Belorussia and the Baltic area it is intended to provide for stable growth of the production of winter rye grain. It is also intended to increase the productivity and gross yields of groat crops, namely millet and buckwheat. In order to augment resources of feed grain, in addition to increasing the production of barley and oats, it is intended to utilize the large possibilities of corn more fully, increasing the gross yields of its grain to 20 million tons by 1990. In order to reduce the shortage of protein, it is intended to increase the production of pulse crops to 18-20 million tons. In order to create the necessary conditions for increasing grain production, the program envisions increasing the allotments of mineral fertilizers for grain crops no less than 1.7-fold by 1985 and to double them by 1990.

There is no doubt that increasing grain production should be accompanied by constant concern for economical utilization of it. Therefore it will be necessary to analyze all items of grain expenditure very attentively, and to ensure a thrifty attitude toward it, especially grain for forage purposes. While before the revolution the country produced 455 kg of grain per capita and in 1961-1965--580 kg, under the 10th Five-Year Plan it produced 786 kg, and by 1990 the task is to increase it to 915-950 kg per capita.

But still there has not been enough grain in recent years. The problem is that many farms cover their shortage of coarse feeds with concentrated feeds, frequently from state resources. This gives rise to feelings of dependency and becomes a burden both for the farms themselves and for the state.

Hence the conclusion: it is necessary to produce animal husbandry products, mainly beef, mutton and milk, with minimal expenditures of grain. In this connection it is necessary to decisively improve the structure of animal husbandry and the types of feeding of livestock.

Radical improvement of feed production is still an immediate task. This issue has become especially crucial. We have 116 million head of large-horned cattle, 73 million hogs, 142 million sheep and about 1.1 billion head of poultry. Facilities have been constructed. The technical equipment for animal husbandry increased from year to year, but because of the shortage of feeds the genetic potential is utilized inefficiently. The kolkhozes and sovkhoses are obtaining smaller and smaller amounts of output from each head of livestock.

This is why, Comrade L. I. Brezhnev especially emphasized at the plenum that the main thing under modern conditions is to increase the productivity of livestock and to intensify animal husbandry in all ways through steadily increasing the production and improving the quality of feed. Large measures will have to be carried out for intensifying field and meadow and pasture feed production, the productivity of all feed lands will have to be increased, and it will also be necessary to construct a considerable number of storehouses for feeds and enterprises for producing mixed feeds.

The May Plenum of the Party Central Committee and the Food Program it approved direct Party, Soviet and agricultural agencies, kolkhozes and sovkhoses toward concern for reproduction of the livestock and providing for steady growth of meat production as a result of increasing the average daily weight gain and reducing the time periods for raising and fattening livestock. Many years of experience of our best farms show that this is the most correct and effective way.

The main directions for increasing meat resources should be accelerated growth of beef production, more efficient hog raising, better utilization of the capacities for obtaining mutton, and an all-around increase in the capacities for industrial poultry raising.

In the next year or two it will be necessary to make up for the arrears in dairy farming and achieve an increase in the productivity of cows everywhere. A task has been set to increase the milk yield per cow on the kolkhozes and sovkhoses by 500-600 kg by 1990 and to increase it to 4,000 kg in regions with developed dairy farming.

The program devotes a great deal of attention to measures for providing the population with fruit and vegetable products and potatoes. Taking into account the favorable climatic conditions of the southern regions of the RSFSR, the Ukrainian SSR, the Kazakh SSR, the Republics of Central Asia, Transcaucasia, and the Moldavian SSR, the task will be to transform them into the main base for supplying the population of the cities of the central and northern areas of the European part of the country, the Urals, Siberia and the Far East with products of heat-loving vegetable, fruit and berry crops. And the demand for potatoes and products of late vegetable, fruit and berry crops will be satisfied mainly through local production. In order to provide potatoes for the large industrial centers, the program envisions completing the creation of specialized zones for producing them in Belorussia, the oblasts of the nonchernozem zone of the RSFSR and the Baltic republics; early potatoes will be produced in regions of the Ukrainian SSR, and the republics of Transcaucasia and Central Asia. A system of measures have been earmarked for radical improvement of the procurement, storage, processing and transportation of fruit and vegetable products.

The Food Program envisions further increasing the production of sugar beets and has set assignments for the output of sugar. There is to be a significant increase in the production of seeds of oil-bearing products and the output of vegetable oils and margarine products. Measures have been earmarked for increasing the amount of fish and sea products. The production of commercial fish in fisheries will be increased approximately 3-fold and thus the demands for these products will be fully satisfied.

As the earmarked goals are reached it is intended to increase the output of food products at enterprises of food branches of industry, through the consumers' cooperation and in the shops of the kolkhozes and sovkhozes. At the same time it is intended to considerably raise the level of the service for trade in food products and to develop and improve direct ties between trade and kolkhozes and sovkhozes and other enterprises of the agro-industrial complex.

In order to achieve the parameters of food production earmarked by the Plenum of the CPSU Central Committee, it is intended to provide for more balanced developments of the country's entire agro-industrial complex. Under the 12th Five-Year Plan 30-35 percent of the overall volume of capital investments in the national economy will go for its development, and 27-28 percent directly for agriculture.

The program envisions using capital investments primarily for the development of branches that will provide for an increase in the production of food products in the shortest periods of time. In the central unit of the agro-industrial complex--agriculture--it is intended to use them primarily for increasing the fertility of the land, creating a stable feed base, constructing storehouses, mechanizing operations, introducing capacities for initial processing of products and providing for social development of rural areas.

We are also speaking about increasing the capacities of agricultural machine building, machine building for animal husbandry, the chemical industry and the construction industry. Special attention is being devoted to the reconstruction of enterprises and the start-up of new capacities for producing flour, macaroni, confectionary items, meat and dairy products, sugar, vegetable oil, margarine and other food products. In order to sharply reduce losses in branches that procure and process products and also in trade, large measures have been earmarked for the construction of storehouses for grain, potatoes, vegetables and fruit, and also the construction of refrigeration capacities.

The significant capital investments in the development of branches of the agro-industrial complex requires radical improvement of the organization of construction. The construction of facilities for the implementation of the Food Program should be regarded as shock construction sites of the country.

Fixed production capital in agriculture is to increase approximately 1.5-fold during the decade, and energy capacities--1.6-fold. During this decade there will be increased production of tractors, combines and other machines and their quality will improve. For the main machine building ministries that produce machines and equipment for branches of the agro-industrial complex, the program earmarks specific directions for technical progress and assignments for producing the most important means of mechanization and automation and for complete satisfaction of

the needs for spare parts. Basically completing comprehensive mechanization of farming and animal husbandry and re-equipping food branches on a new technical basis before 1990 are a primary task.

A task has been set to improve transportation for branches of the agro-industrial complex. To accomplish this, it is intended to allot a significant quantity of trucks, trailers, milk cars, cattle cars and refrigerated cars during the decade. Measures have been earmarked for improving shipments of agricultural products and foodstuffs by rail, sea, river, air and automotive transportation. Volumes of road construction, especially intrafarm, will increase. Bus transportation between rural population points and rayon centers will be expanded.

Along with solving problems of further improving technical equipment for branches of the agro-industrial complex, it is extremely important to insure fuller and more skillful utilization of already existing technical equipment. It is necessary to increase the daily productivity of tractors, harvesting machines and means of transportation by approximately 20 percent, and also to operate them thriftily and efficiently, and improve maintenance and readiness for operation.

Chemization of agricultural production will be further developed. In recent years, as we know, a good deal has been done to increase the production of mineral fertilizers. Nonetheless the farms are still experiencing a shortage of mineral fertilizers, herbicides, feed preservatives and synthetic wrapping materials, which seriously impedes the growth of the gross yields of farming products and does not enable the farmers to change over to industrial technologies, to reduce the labor-intensiveness of agricultural crops or to increase the preservation and improve the quality of feeds.

In order to improve the supply of means of chemization for the kolkhozes and sovkhozes, the Food Program envisions increasing the deliveries of mineral fertilizers to agriculture to 30-32 million tons by 1990 (translated into terms of 100-percent content of nutritive substances), chemical feed supplements--to 1.2 million tons, means of plant protection--to 750 thousand-790 thousand tons, and feed preservatives--to 380 thousand-480 thousand tons. It will also be necessary for agriculture to do a large amount of work for increasing the returns of fertilizers and other means of chemization, to reduce losses of them, to change over to more progressive methods of applying them, and to raise the overall level of agrochemical service to the kolkhozes and sovkhozes by organizations of Soyuzsel'khozkhimiya.

Under the conditions of our country, where the majority of the land suffers from a shortage of moisture, or, conversely, from a surplus of it, land reclamation is immensely important. It serves as one of the most reliable means of gradually reducing the unfavorable influence of the elements on the final results of agricultural production, providing for greater stability, and actively utilizing more and more land which is now unsuitable for intensive farming. The scope and rates of land reclamation in the USSR has no equals in the world. Reclaimed land now constitutes only about 10 percent of the arable land in the country and produces more than one-third of the crop growing products.

Land reclamation work will be continued during the forthcoming period. It is intended to increase the areas of irrigated land to 23-25 million hectares by 1990, and drained lands--to 18-19 million hectares, as against 17.3 and 12.6 million hectares in 1980. Here major attention is being devoted to the reconstruction of existing irrigation and drainage systems in order to increase the productivity of the reclaimed areas.

On irrigated land zones will be created for guaranteed production of grain, especially corn, feeds, vegetables and early potatoes. Agricultural and water management agencies as well as each kolkhoz and sovkhos must take decisive measures for increasing the productivity of all agricultural crops that are cultivated on reclaimed land and expand the areas that are planted more than once a year.

Science will play a larger role in implementing the Food Program. Measures have been earmarked for further development of scientific research and for improvement of the organization of the introduction of the achievements of science and advanced practice into production. There will have to be extremely serious work done on questions of specialization and concentration of production, its distribution among the various regions of the country, the optimal sizes of enterprises and also forms of labor organization and incentives for labor to achieve final results. Selection, breeding and planning and design work will be raised to a higher level. The state of affairs in branches of the agro-industrial complex dictates the persistent need for all-around acceleration of scientific and technical progress and the achievement of a high return from scientific developments.

The kolkhozes and sovkhoses play a decisive role in increasing the production of agricultural products. It is precisely here that the main efforts for further increasing the production of food products are concentrated. Additionally, the Program envisions the development of subsidiary farms of industrial enterprises so as to maximally satisfy the needs of public catering for meat, milk, vegetables, potatoes and other kinds of food products. A large field of activity opens up here for all ministries, departments, enterprises and organizations.

A constituent part of the Food Program is made up of measures for social restructuring of rural areas, and further raising the level of well-being, culture and medical and domestic services for rural residents. It is intended to allot 160 billion rubles for these purposes during the decade. There will be considerable improvement in the organization and increased volumes of municipal-housing, cultural-domestic and road construction, and the necessary conditions will be created for retaining personnel in rural areas. Under the 11th Five-Year Plan 176 million square meters of growing space will be put into operation here, and under the 12th--15-18 percent more. Assignments have been set for developing heating and gas networks, running water and other facilities in rural areas.

When describing the scope of the forthcoming work, Comrade L. I. Brezhnev said at the Plenum: "This is a large policy directed toward eliminating the social differences between the city and the country. And this means implementing one of our program requirements which is scientifically substantiated by Marxism-Leninism."

One of the cardinal tasks set in the Program consists in decisively increasing the effectiveness of agricultural production and all branches of the agro-industrial complex. The center of gravity now--and this is a distinguishing feature of the agrarian policy for the 1980's--will shift to return from capital investments, increased productivity of agriculture, and deepening and improvement of its ties with all branches of the agro-industrial complex. It is precisely this approach that was placed as the basis of the Party economic policy by the 26th CPSU Congress. This principal point will be realized in the fact that labor productivity on the kolkhozes and sovkhozes will increase approximately 1.5-fold by 1980, and the production of agricultural product per hectare of agricultural land--by no less than one-third. It will be necessary to change over to intensive methods of farming and to provide for better utilization of land, production capacities and labor, material and financial resources.

In this connection, one must say directly that many local agricultural agencies, kolkhozes and sovkhozes still do not fully utilize the existing possibilities of increasing the return from production capital, reducing material and labor expenditures, improving product quality and increasing production efficiency.

At the May (1982) Plenum of the Party Central Committee it was recognized as expedient to implement a system of measures directed toward improving administration of agriculture and other branches of the agro-industrial complex as well as perfecting the economic mechanism. For the first time the agro-industrial complex is singled out as an independent object of planning and administration at all levels of management. This will make it possible to eliminate departmental fragmentation and to unite local and state interests more fully. Broad new possibilities are opening up for a special-purpose comprehensive approach and for closer coordination of territorial and branch planning.

The improvement of administration and planning is directed toward achieving a high final result--continual supply of food for the country and an all-around increase in the effectiveness of public production. The restructuring of this system of administration of the agro-industrial complex should be directed toward precisely this goal. Here special attention is attached to the rayon level. In rayons they create agro-industrial associations which include kolkhozes, sovkhozes, interfarm formations, and also enterprises and organizations that serve them and those related to agriculture production and the processing of products.

The administrative agencies of the associations are councils consisting of managers of enterprises and organizations that are included in the associations. But the enterprises and organizations retain their economic independence, the rights of a corporate body and their departmental jurisdiction, but all of their activity is directed toward fulfilling the tasks of the association. The association is becoming a truly authorized and democratic administrative agency that is capable of fully influencing agricultural production, taking the interests of all of its members into account. The experience accumulated by agro-industrial associations in a number of regions of the Russian Federation, the Ukraine, Georgia, Latvia, and Estonia show that this is an effective measure.

Associations are also being created in the oblasts, krays and autonomous republics. These associations include oblast, kray and republic organizations of the agro-industrial complex and enterprises under their jurisdiction. These associations

are also managed by councils. The councils of the associations in the rayons, oblasts, krays and autonomous republics will be created at sessions of the corresponding Soviets of People's Deputies.

In the union republics it is intended to create commissions of the presidiums of the councils of ministers of the union republics or other agencies for questions of the agro-industrial complex. Along with the restructuring of the administrative agencies, they intend to simplify and reduce the cost of the apparatus, to rid it of unnecessary units and to provide for efficiency and effectiveness of administration.

A great deal of importance is attached to the commission of the Presidium of the USSR Council of Ministers that has been created for questions of the agro-industrial complex. It has been given the corresponding rights and the responsibility for improving the supply of food products to the population, and coordinating the work of all the ministries and departments that comprise the country's agro-industrial complex.

This Commission is unusual in its functions. Its influence should extend to an immense sphere of material production. It has been recognized as necessary for the decisions of this Commission, within the limits of its competence to be compulsory for all ministries and departments of the USSR and republic commissions for questions of the agro-industrial complex.

Increased effectiveness of agriculture is impossible without stable economic conditions for authentic, and not formal, autonomous financing. These conditions do not yet exist everywhere. Many kolkhozes and sovkhozes are unprofitable. A large number of farms have a low level of profitability. In recent years kolkhozes and sovkhozes have sold meat, milk and many other kinds of agricultural products at a loss. These farms have not been paying enough attention to autonomous financing as the most important principle in socialist management. In a number of cases they have reduced the role of such economic levers of administration as prices, profits and credits. They do not sufficiently stimulate production growth.

In order to improve the economic situation it has been recognized as necessary to implement a number of goal-directed measures. In terms of their scope and the depths of influence on agricultural enterprises, they constitute an immense economic and political action.

Beginning on 1 Jan 1983 procurement prices will be raised for large horned cattle, hogs, sheep, milk, grain, sugar beets, potatoes, vegetables and certain other kinds of products. Increments to procurement prices will be introduced for products that are sold to the state by less profitable farms or those that are operating at a loss. State expenditures for these purposes will amount to 16 billion rubles a year.

On kolkhozes that are operating at a loss the construction of housing, children's preschool institutions, clubs and other facilities for cultural and personal purposes as well as intrafarm roads will be financed from the state budget.

The economic interrelations between agriculture and other branches of the agro-industrial complex are being improved. The main thing in these interrelations is to increase the motivation for enterprises and organizations that serve kolkhozes and sovkhozes to achieve good final results of the production of animal husbandry products and the products that are processed from them. The level of material incentive for the partners of agriculture will now depend to a considerable degree on the increase in the production of grain, meat, milk and other products of the fields and farms. It is intended to make the evaluation of the activity of procurement organizations directly dependent on the fulfillment of state plans for the procurements of agricultural products.

The Party Central Committee and the government considered it necessary to take large measures for assigning personnel to the kolkhozes and sovkhozes. In recent years the number of specialists with higher and secondary specialized education on the farms has been increasing. In the majority of cases agricultural enterprises are headed by experienced, competent and professionally qualified managers. But there are many farms where the managers and specialists are restructuring their work slowly and utilizing poorly the existing possibilities of increasing production and profitability. Labor turnover is high. There are frequent mistakes in the selection of personnel on the part of local Party, Soviet and management agencies. In a number of oblasts and rayons there are cases of minor favoritism and unjustified recommendations which regulate the operation of the farms and impinge upon the initiative of the managers and the specialists.

The high demands that are placed on agriculture make it necessary to strengthen all sections of kolkhoz and sovkhoz production with well qualified managers, specialists and personnel in mass occupations.

The CPSU Central Committee and the USSR Council of Ministers approved the initiative of the specialist who expressed a desire to transfer from administrative agencies and organizations for serving agriculture to practical work directly on the kolkhozes and sovkhozes. When people transfer to lower levels of production, they retain the average monthly earnings of their previous job for three years, and when they transfer to less profitable farms or farms that operate at a loss they retain these earnings for five years. Other benefits are also being established.

It is intended to take effective measures directed toward increasing the material motivation of agricultural workers to increase the production of products and to improve their quality. The main thing here is for each worker to see and recognize the direct simple and comprehensible link between that which he has done and that which he has earned. It is also very important to make a decision to expand the practice of non-cash payments.

Even under this Five-Year Plan it is intended to extensively introduce the brigade and collective contract and the piece-rate plus bonus system in branches of the agro-industrial complex. Regional coefficients are being introduced in regions of Siberia, the Far East and Kazakhstan. The policy and conditions for paying increments to wages for continuous service are being extended to animal husbandry workers, and they are also being given additional paid vacations.

The salaries of managers, specialists and employees of sovkhozes are being increased by an average of 30 percent.

In 1983 more than 30 billion rubles will be allotted for the implementation of measures for strengthening the economy of the kolkhozes and sovkhoses, retaining personnel and stimulating production.

The implementation of the Food Program is the business of all Soviet people. It is necessary to reach to a point where every person makes his own particular contribution to its implementation. Workers in industry, construction and transportation must increase the output of highly effective material and technical means and the volume of services rendered in rural areas. It is the direct duty of workers of agriculture and the food branches to increase the production of all kinds of food products and improve their quality. All Soviet people must be imbued with a deep responsibility not only for the accumulation of food resources, but also thrifty, economical expenditure of them.

The USSR Food Program is the specific business of each republic, kray and oblast. The May Plenum of the CPSU Central Committee emphasized that its fulfillment depends on how fully we utilize the capacities of each region, of each economic rayon. Management agencies of the republics, krays and oblasts bear full responsibility for reliably supplying the population with food, and above all through increasing the local production of these products. The program has earmarked the main goals of production for each union republic. It will be necessary to establish such goals for each ministry, department, kray, oblast, rayon and enterprise as well.

These days the ministries, departments, republics and oblasts are drawing up drafts of plans for 1983. When developing them it is necessary to envision the realization of all measures earmarked by the May (1982) Plenum of the CPSU Central Committee for further development of the agro-industrial complex.

On 31 May at a meeting of the Presidium of the USSR Supreme Soviet, Leonide Il'ich Brezhnev, speaking about the tasks of the Soviet People's Deputies for carrying out the decisions of the May Plenum of the Party Central Committee, emphasized that "implementation of the economic strategy for the development of the society presupposes the participation of all units of the Soviet political system. The first among these is the state, its agencies, and above all, of course, the councils. One can say without exaggeration that they are responsible for a large proportion of the work for implementing the program that has been earmarked by the Party."

This statement should lie at the basis of all activity of Soviet and economic agencies. It is necessary to improve the style and methods of work, to achieve greater efficiency and smoothness; to increase responsibility and develop the initiative of each worker and to insure a truly state, creative approach to solving the food problem.

The Food Program sets tasks with various lengths of time: long-term, medium-term, short-term, and immediate. Today especially the last of these should be at the center of our concerns. It is necessary to do everything for us to obtain a large harvest this year and to provide for an increase in all kinds of food products.

Last spring we planted more grain crops, corn for grain, sunflowers and feed crops than were envisioned in the calculations for the plan. The field work was conducted on a high agro-technical level. Now it is important to complete the tending of the planted areas promptly and well.

Grasses are now being harvested in the country. It is necessary to work in such a way that the plans for the procurement of hay and the storing up of haylage, silage and other feeds are not only fulfilled by each kolkhoz and sovkhov, but are considerably overfulfilled. It will be necessary to accelerate the preparations for harvesting, to repair all technical equipment well, to deliver new machines, fuel and means of chemization to rural areas on time, and to provide for fulfillment of the plans and schedules for construction and installation work on this year's most important construction projects. The year 1982 should be a turning point. The primary task is to achieve fulfillment and overfulfillment of the plans for the production and procurement of agricultural products by all oblasts, rayons and farms.

Even this year there are real possibilities of considerably improving the supply to the population of potatoes, many kinds of fruit and vegetable products, macaroni, groats and confectionary items. It is necessary to mobilize the efforts of the ministries, republics, oblasts and rayons for realizing these possibilities. One of them is to reduce losses. A number of decrees have been adopted regarding citing against losses. These issues were reflected in the Food Program as well. Now it is a matter of providing for implementation of the decisions that have been made.

The Food Program is not only an essential turning point in the advancement of agriculture and the branches related to it. In terms of its nature and scope it is called upon to provide for progress of the entire national economy. The Soviet people are accepting the Food Program as its vital cause. Its implementation will provide for further improved well-being of the people, will strengthen the authority of our homeland and will accelerate the progress of the Soviet society on the path to communism.

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AGRO-ECONOMICS AND ORGANIZATION

INTERSECTORIAL STRUCTURE OF AGRICULTURE ANALYZED

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/Article by V. A. Tikhonov and M. L. Lezina: "On the Intersectorial Structure of Agriculture"/

/Text/ This article considers agriculture an overall sector including, in addition to agricultural production, nonagricultural types of activities realized by industrial enterprises, which are on the balance sheets of state farms and kolkhozes, as well as by the enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture and of the USSR Ministry of Land Reclamation and Water Resources. The basic directions for an improvement in the structure of agriculture, including of its basis--agricultural production--are formulated. The need to revise the system of recording the results of agricultural production for the purpose of reflecting its real efficiency is shown.

The goal of the national economic agroindustrial complex formed under present conditions is to meet the growing needs of society for agricultural output and the products of its processing with a simultaneous increase in the efficiency of public production.

Agricultural production, which provides the natural-biological conditions of reproduction of the end product of the agroindustrial complex, plays the most important role in the realization of this goal. In his report at the May (1982) Plenum of the CPSU Central Committee L. I. Brezhnev stressed that it represented the initial base of the fundamental solution of the food program.

The agroindustrial complex considered an organizational-economic form of agroindustrial production represents a single system of specialized, proportionally developing sectors of the national economy forming a relatively independent, integrated object of centralized management. Agriculture, which unites a large number of agricultural enterprises of various departments (mainly of the USSR Ministry of Agriculture) and of the private subsidiary sector of workers, employees and kolkhoz members, is the basic link of this complex multisectorial subdivision of the national economy. At present this sector of the national economy is much broader than agricultural production.

The latter, functioning for the purpose of meeting public needs for plant and livestock products, forms the basis for agriculture and determines its place and role in the agroindustrial complex. Plant growing and animal husbandry account for the overwhelming part of the resources and results of modern agroindustrial production, that is, about 60 percent of the fixed productive capital and labor resources and almost one-half of the end and more than one-half of the net output. This brings about a significant effect of the level of development of agricultural production on an increase in the efficiency of the entire system of the agroindustrial complex. At the same time, not only an increase in the volumes of crop output, but also an improvement in the structure of farming, is of great importance.

Under the conditions of intensive development of animal husbandry the immediate task is to eliminate the existing disproportions between the livestock population and the feed base and between the general provision with feed and the amount of protein in it. An increase in the production of livestock products should now be obtained not as a result of an increase in the stock of animals, but primarily as a result of a rise in the productivity of animals up to the level attained on advanced farms.

This applies especially to dairy husbandry. With the existing stock of cows the necessary quantity of milk can be obtained when the average milk yield is increased to 3,000 kg per cow. The attainment of such productivity is possible when the feed base ensuring a level of normal feeding is built up and unproductive and dry cows are culled.

An increase in the provision of animals with feed necessitates a significant expansion of grain fodder crops in the country's grain wedge. To balance the feed ration in terms of protein, as noted in the food program, it is necessary to increase the production of pulse crops to 18 or 20 million tons by 1990.

At the same time, the attempt to expand the sown areas of all agricultural crops, including grain crops, as well as an increase in the stock of animals, is unsubstantiated. Putting to use additional areas not fully provided with the necessary production resources cannot bring a significant increase in the effect of agricultural production.

Thus, under present conditions it is important not only to increase the volumes of grain production, but also to improve its structure according to the directions of utilization. Along with the growth of production of grain fodder crops, it is necessary to ensure growing yields of strong and durum wheat, buckwheat, rice and brewing barley.

The development of the regional specialization of farming and the placement of basic types of commodity products in regions with the most favorable natural-climatic and economic conditions of their production are important directions in the improvement in the structure of farming. In particular, it is advisable to establish a zone for the production of corn grain and soybeans, as well as zones for the production of other agricultural products.

In addition to the enumerated changes it is possible to mention a number of necessary structural changes in agricultural production, that is, improvement in the structure of sown areas, vegetable and fodder crops, meat production, including

the development of specialized beef husbandry and so forth. However, all this does not exhaust the problem of optimization of the structure of agriculture as a national economic sector, because, as noted above, at present agricultural production now forms only part (although the basic part) of agriculture and the production of plant and livestock products is not the only type of production activity at agricultural enterprises.

The existence of two tendencies contradictory to some extent has been characteristic of the development of agriculture in the last 20 years. Under the effect of the social division of labor a number of systems servicing this sector, that is, mixed feed production (basically, the mixed feed industry of the USSR Ministry of Procurement), rural construction (construction organizations of the Ministry of Rural Construction, the Interkolkhoz Construction Organization and the Ministry of Land Reclamation and Water Resources) and repair and technological production servicing (enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture), were separated from it at the end of the 1950's and the beginning of the 1960's. At the same time, however, despite the availability of specialized production systems, nonagricultural production facilities, that is, repairs of tractors and agricultural machines, mixed feed industry, construction and production of building materials, transport and so forth, have developed intensively on kolkhozes and sovkhoses since the early 1970's. As a result, these enterprises now participate in the reproduction of the end product of the agroindustrial complex not only at the stage of production of agricultural products, but, in practice, at all other stages, including the production of means of production, processing of agricultural raw materials, sphere of circulation, transportation and technological production servicing.

The volumes of nonagricultural production at agricultural enterprises at present reach quite big dimensions (more than 30 percent of the gross output of farming) and, most importantly, continue to rise. This fact, which is the main reason for an ever greater divergence between agricultural production and agriculture as a national economic sector, does not make it possible to ignore the nonagricultural types of activities of this sector during an evaluation of its role in the functioning of the agroindustrial complex.

More than 220,000 subsidiary industrial enterprises operated at sovkhoses, kolkhozes and interfarm enterprises of the USSR Ministry of Agriculture in 1979. A total of 1.7 million people were employed and output worth 16.0 billion rubles was produced at them, which exceeded the volume of production of these enterprises more than twofold, as compared with 1970, and by 43.8 percent, as compared with 1975. The number of enterprises for the repair of agricultural equipment rose considerably, that is, from 30,000 in 1965 to 48,300 in 1979. During that period the value of the fixed productive capital of repair shops increased almost sixfold. In all, in 4 years (1975-1979) the volume of mixed feed production in monetary terms increased 8.7-fold (while the number of employed individuals rose 3.3-fold) and output from agricultural raw materials, 48.5 percent.

The volume of construction and installation work (according to the estimated cost) performed by the economic method on kolkhozes and sovkhoses of the USSR Ministry of Agriculture increased 3.7-fold during 1965-1979. The role of the economic method in agricultural construction is not declining. As in 1965, more than 35 percent of all the construction work is now performed by this method on kolkhozes and sovkhoses of the USSR Ministry of Agriculture.

On the whole, in 1979 agricultural enterprises of all departments obtained gross output worth more than 35 billion rubles from nonagricultural types of activities (industrial enterprises, construction and motor transport). In 1970-1979 the rates of increase in this output outstripped the corresponding rates of crop output, comprising 104.6 and 53.5 respectively. Whereas in 1970 nonagricultural output comprised 19.7 percent of the total output produced, in 1979 it comprised 24.7 percent (table 1).

Table 1. Output of Nonagricultural Production Facilities of State Farms, Kolkhozes and Interfarm Enterprises, Billion Rubles (in Current Prices)

Output	1970	1979	Index (1970=1.00)
Industrial	7.9	18.0	2.28
Construction	5.9	10.5	1.78
Motor transport operations	3.4	6.7	1.97
Total	17.2	35.2	2.05
Proportion in total gross output			
agricultural	80.3	75.3	--
nonagricultural	19.7	24.7	--

It is characteristic that on kolkhozes the tendency toward the growth of nonagricultural production facilities is less pronounced than on state farms. From 1970 through 1979 the volume of nonagricultural output at them increased by 62.7 percent and in 1979 comprised 14.5 percent of the total gross output. During that period on state farms the volume of the same output increased 2.2-fold and comprised 22.6 percent of the total production volume respectively.

Apparently, objective reasons determining the quite intensive development of nonagricultural production facilities within the framework of agricultural enterprises are connected primarily with the limited possibilities of industry and of service sectors of the national economy to meet the needs of agricultural production for means of production and services. As a result, kolkhozes and sovkhoses are forced to organize the production of mixed feed and building materials, to establish their repair base and so forth.

Theoretically, this tendency toward the sector's "despecialization" cannot be called advanced, because it leads to the dissipation of resources, increases production costs and hampers the process of production socialization. Apparently, with the development of the material and technical base and rise in the level of production of sectors servicing agriculture and processing its output the resources of agriculture will be utilized primarily for the production of foodstuffs and raw materials for industrial sectors. An increase in the social and economic efficiency of the functioning of the agroindustrial sector as a whole should become the main criterion of the advisability of development of nonagricultural types of activities in the public sector of agriculture. However, the realization of this provision depends on the degree of adjustment of intersectorial interconnections of agroindustrial production and interrelations of agricultural enterprises with sectors supplying means of production and services to them no less than on the level of development of the material and technical base of sectors connected with agriculture. The economic mechanism forming the basis for these relations should

orient all the links of agroindustrial production toward the attainment of the common goal, enabling kolkhozes and sovkhozes to actively affect the refinement of the structure of the means of production supplied to them, the improvement in their quality and the dates of acceptance and evaluation of the output of agriculture by trade organizations and processing enterprises. Otherwise, all the sectors of the agroindustrial complex will develop separately from each other and, therefore, the high production potential of nonagricultural sectors will not ensure an increase in the efficiency of the entire system. The functioning of the enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture can serve as an example of such a situation. The production activity of this system evaluated from the point of view of its intrasectorial purposes and tasks is sufficiently efficient. During 1965-1979 the rates of profit growth outstripped the rates of growth of production volumes more than 1.5-fold. Nevertheless, this structural link of modern agroindustrial production at one time established especially for the servicing of agriculture and at present having a sufficiently strong material and technical base does not relieve kolkhozes and sovkhozes of the need to develop the types of nonagricultural production that are basic for the system of the State Committee for Supply of Production Equipment for Agriculture. Thus, with the constant expansion of the repair base of the enterprises of the State Committee for Supply of Production Equipment for Agriculture (during 1965-1979 the value of the fixed productive capital of repair enterprises increased more than 3.5-fold) at present agricultural enterprises still perform the bulk of the repair of tractors and agricultural equipment with their own forces. The repair plants and shops of the State Committee for Supply of Production Equipment for Agriculture perform only 26 to 27 percent of the total repairs of tractors and 4.5 percent of the repairs of agricultural machines, increasing the volume of work of nonagricultural specialization for other sectors of the national economy. The participation of the State Committee for Supply of Production Equipment for Agriculture in the repairs of engines, individual subassemblies and units is more significant (almost 60 percent). This is due to the fact that the existing system of planning and evaluation of the activity of the enterprises of the State Committee for Supply of Production Equipment for Agriculture, in which the indicators of gross and sold output play the basic role, brings about an attempt on the part of these enterprises to fill primarily orders with a high proportion of expensive spare parts and units, whose value is taken into consideration in gross output. As a result, it turns out that, in practice, the fulfillment of the plan of repair enterprises and, therefore, the evaluation of the results of their work are connected neither with the degree of satisfaction of the needs of agricultural production for repairs, nor with their quality. This circumstance, as well as the constant rise in the prices of services of the repair enterprises of the State Committee for Supply of Production Equipment for Agriculture, leads to the fact that kolkhozes and sovkhozes establish their own base for equipment repair, thereby diverting material and labor resources from the accomplishment of their basic task--production of plant and livestock products.

The facts presented indicate that the imperfection of the economic mechanism of interrelations of the organizations and enterprises of the State Committee for Supply of Production Equipment for Agriculture with agricultural enterprises manifested in the fact that the economic interests of this department often are at variance with the interests of kolkhozes and sovkhozes, in practice, is one of the main reasons for the intensive development within the framework of the latter of such types of nonagricultural activities as the repair and technical servicing of tractors and agricultural machines.

Apparently, similar reasons have led to the fact that about 20 percent of all the mixed feed is now produced in agriculture, despite the fact that during 1966-1976 the volumes of production of the mixed feed industry in the system of the Ministry of Procurement rose 2.5-fold, while profit increased almost sixfold.

The same situation exists in the rural construction industry. The system of contracting construction organizations of the USSR Ministry of Rural Construction was established for the performance of construction and installation work in agriculture. In fact, in 1979 it performed only 11.3 percent of the total volume of agricultural construction. More than 40 percent of the production capacities of this ministry are diverted for the performance of work at nonagricultural projects. As a result, more than 20 percent of the total volume of construction and installation work in agriculture is performed by the economic method, whereas throughout the national economy this indicator is 12 percent.

Thus, an improvement in the economic mechanism of interrelations of this sector with other sectors of the agroindustrial complex and the entire national economy plays a decisive role in the accomplishment of the task of further specialization of agriculture and of the relief of agricultural enterprises of nonagricultural types of activities. The realization of this task is part of the general problem of improvement in the sectorial structure of the presently formed agroindustrial complex, which is characterized by a duplication of a number of production functions at the enterprises of various departments and the predominance in the activity of these departments of private sectorial goals over the final goal of the system as a whole. An improvement in the sectorial structure of the agroindustrial complex presupposes a clear determination of the objective production functions of agroindustrial production according to its stages and their substantiated distribution among sectors.

The target approach, in which the final goal of the complex--the volumes and structure of its end product--is the initial factor, should be the main approach during the optimization of the structure of the agroindustrial complex. The economic mechanism of intersectorial economic production cooperation, as well as of the interaction of the system of agroindustrial production with the national economy as a whole, should create a firm and stable orientation of every sector toward the maximization of the end result of the agroindustrial complex with the optimization of sectorial interests.

The optimization of the structure of the agroindustrial complex should lead to a change in the conditions of reproduction in agriculture, as a result of which this sector will develop as a narrowly specialized sector meeting the needs of the national economy mainly for crop output. However, in the very near future it would be inefficient to curtail nonagricultural production facilities on kolkhozes and sovkhozes, because under present conditions the existing structure of agriculture makes it possible to eliminate a number of negative phenomena connected with the relatively undeveloped material and technical base of the sectors of the infrastructure of agriculture and the unbalanced intersectorial volume.

The retention for a definite time of the existing production structure of agriculture necessitates a revision of the system of recording of its economic results for the purpose of a real reflection of the actual cost accounting and national economic efficiency of the capital investments in this sector. These investments are now compared only with the gross output of plant growing and animal husbandry, whereas a certain part of them is used for the development of nonagricultural production facilities.

The urgency of the indicated problem of improvement in the recording system increases in connection with the fact that the planning of capital investments for the development of agriculture in terms of the entire set of operations was introduced in 1970. In addition to agricultural production, it includes the construction of repair enterprises of the USSR State Committee for Supply of Production Equipment for Agriculture, construction of enterprises for the production of building materials and development of the construction industry of the contracting organizations of the system of the USSR Ministry of Land Reclamation and Water Resources, construction of enterprises for the processing of agricultural products and production of building materials and development of the production base of the construction industry at kolkhozes and interfarm organizations.

Thus, there is a need to record the gross output of the sector "agriculture" in terms of the entire set of operations. In this case, in addition to kolkhozes, state farms and interfarm enterprises, the enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture and of the Ministry of Land Reclamation and Water Resources are included in the sector.

The system of the State Committee for Supply of Production Equipment for Agriculture includes enterprises of varying specialization, which through their production activity bring about the participation of the entire system in three out of five stages of the reproduction of the end product of the agroindustrial complex. Repair plants, shops and construction belong to capital producing sectors, supply and trade organizations, to the sphere of circulation and technical service stations, mechanized detachments, line-installation sections for the mechanization of livestock farms and motor transport enterprises, to the stage of technological-production servicing.

The total volume of the production activity of the State Committee for Supply of Production Equipment for Agriculture annually reaches more than 10.0 billion rubles and of trade turnover, more than 22.0 billion rubles, while the total number of employed workers is 1.7 million.¹ The overwhelming part of the gross output of this system (more than 60 percent) is created in industry (repair shops and plants) and at enterprises providing production services to kolkhozes and sovkhozes.

The enterprises and organizations of the Ministry of Land Reclamation and Water Resources, along with reclamation construction, which is the basic type of their production activity, perform to a significant extent the functions of capital producing sectors (more than 200 enterprises) of varying specialization, including machine building, repair and so forth, and of agricultural production (about 250 sovkhozes). The volume of production of this system now exceeds 7.0 billion rubles, while the number of employed individuals is more than 1 million. With the growing profitability of this important link of agroindustrial production (during 1966-1979 profit more than tripled) the predominance of private sectorial goals over the final goal of the agroindustrial complex in its activity is indicated by the low quality of reclamation construction and of the operation of reclaimed land, as a result of which during 1971-1975 one-fourth of all the newly introduced irrigated land had to be utilized for compensation for withdrawn land.

Table 2 gives an idea of the specialization and extent of the production of agriculture in terms of the entire set of operations.

1. EKONOMIKA SEL'SKOGO KHOZYAYSTVA, 1980, No 3, p 54.

Table 2. Structure of Output Produced in the Public Sector of Agriculture, Billion Rubles (in Current Prices)

Output	1970	1979	Index (1970=1.00)
Agricultural	69.9	107.3	1.54
Industrial	10.5	23.3	2.22
Construction	8.0	15.6	1.95
Motor transport operations	4.6	10.3	2.23
Other types of production activities	1.8	5.5	3.06
Total nonagricultural output	24.9	54.7	2.20
Proportion in the total volume of the sector's gross output, %: agricultural	73.7	66.2	--
nonagricultural	26.3	33.8	

In 1979 the volume of the total output of agriculture reached 162.0 billion rubles, exceeding the 1970 level more than 70 percent, while the proportion of agricultural output was reduced by 7.5 percent. At present, as before, the basic volume of non-agricultural production (64.3 percent) is produced at agricultural enterprises. Whereas during the 1970-1975 period nonagricultural production processes developed most intensively outside their limits (rates of output comprised 2.08 and 1.57 respectively), the 1975-1979 period is characterized by a certain predominance of the rates of development of these types of activities on kolkhozes and state farms (1.21 and 1.30).

A comparison of the capital investments in agriculture with the total output produced in it makes it possible to get a real idea of the economic efficiency of these investments (table 3).

Table 3. Increase in the Output of Agriculture (in Current Prices) per Ruble of Capital Investments

Indicators	1971-1975	1976-1979
Average annual volume of the total output of agriculture (public sector), billion rubles	114.7	151.5
including agricultural	81.0	102.6
Capital investments in agriculture in terms of the entire set of operations during the five- year plan, billion rubles	112.5	115.7
Increase in total output per ruble of capital investments, rubles	--	1.272
including agricultural	--	0.748
Of the total increase in output agricultural output accounts for, %	--	58.8
nonagricultural output accounts for, %	--	41.2
including output produced at agricultural enterprises accounts for, %	--	27.4

As can be seen, the share of nonagricultural output in the growth indicator of the capital yield is quite high. This makes it possible to draw a conclusion on the need, when evaluating the efficiency of the functioning of agriculture, to ensure the comparability of the amounts of capital investments and the sector's produced output, selecting one out of two variants: a) to compare all the singled out sectors and capital investments with the total created output, including the nonagricultural output of kolkhozes, state farms, interfarm enterprises and enterprises and organizations of the State Committee for Supply of Production Equipment for Agriculture and of the Ministry of Land Reclamation and Water Resources; b) to plan capital investments in a differentiated manner for the sector's agricultural and nonagricultural production and to compare investments with the volume of output for whose production they were utilized. Only in this case is it possible to get an objective idea of the utilization of capital investments directly in farming and of the role of agriculture in the reproduction process of the agroindustrial complex.

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AGRO-ECONOMICS AND ORGANIZATION

EFFICIENT UTILIZATION OF RESOURCES IN AGRICULTURAL ORGANIZATIONS

Moscow FINANSY SSSR in Russian No 8, Aug 82 pp 31-35

/Article by G.A. Palaguta, chief controller-auditor of the Control-Auditing Administration of the USSR Ministry of Finances: "More Efficient Utilization of Resources"

/Text The ministries of agriculture and ministries of finances of the union republic play an important role in connection with the agricultural enterprises carrying out the tasks called for during the May Plenum of the CPSU Central Committee. An analysis of the work carried out aimed at strengthening the sovkhoz economies, mobilizing intra-farm reserves, reducing unproductive expenditures and achieving more complete utilization of labor, material and financial resources over a number of years reveals that considerable successes have been achieved in some agricultural ministries while in others this work is being carried out in a weak manner.

Thus an important task of the financial and agricultural organs is that of uncovering unused reserves in the interest of further increasing production and raising its profitability, improving the quality of the agricultural products and lowering their production costs. Departmental control and also the control-auditing service of the financial organs will play a special role in carrying out the party's economic policies during the 11th Five-Year Plan. Their chief task -- exercising control over the economic utilization of material and financial resources and over the introduction of a strict regime for achieving economies.

A regime for realizing economies is not an end in itself nor a desire to necessarily achieve an absolute reduction in expenditures. In the broad sense it implies not only a savings in the use of resources but also an economic maneuvering of these resources in the interest of achieving a substantial and stable reduction in specific expenditures. This work is presently being carried out in a considerably more active manner in the ministries and departments. Special attention is being given to raising production efficiency, eliminating the dispersion of capital investments, shortening the periods for the mastering of new capabilities and to achieving economies in the use of fuel and power engineering resources. In those ministries where a formal approach is not being employed in the development of measures for carrying out the tasks outlined by the party, the results are readily apparent.

Much evidence is available attesting to the systematic work being carried out by the Ministry of Agriculture for the Latvian SSR with regard to achieving economies

in the use of fuel and power resources. The mentioned problems are constantly being discussed at meetings of the board and measures are being undertaken to eliminate shortcomings. Each year the ministry provides the agricultural administrations of the rayon executive committees and the RAPO's /rayonnoye agropromyshlennoye ob'yedineniye; rayon agroindustrial association/ with zonal differentiated and scientifically sound norms for the expenditure of fuel per unit of work, for inclusion in the production-financial plans of the sovkhozes. Typically, when planning the norms, the actual expenditures over a number of years and also the experience of leading farms and individual machine operators in the thrifty use of fuel are taken into account.

For example, during the 1979-1981 period the planned norms for the expenditure of diesel fuel per standard hectare decreased on farms throughout the republic by 0.75 kilograms or 10.8 percent. Constant reductions are taking place here in the planned norms for gasoline consumption per ton-kilometer of motor transport freight shipments. Over a period of 3 years, these norms fell by 15.7 percent and in 1981 they amounted to 156 grams per ton-kilometer.

Each year the task for achieving economies in the use of fuel and lubricating materials, as called for in the plan for economic and social development, is corrected by the republic's Ministry of Agriculture by way of an increase. The economies are planned not only for a year as a whole but also for individual work periods (spring sowing, harvesting and so forth). This testifies to the fact that it is computed not on a formal basis, in percentages of the expenditure, as is done in some republics, but rather it is done taking into account the available potential.

Fuel consumption per unit of work is analyzed each quarter in the ministry. And it is no accident that a considerable economy in the use of fuel is achieved on the whole; indeed, on farms of the LaSSR Ministry of Agriculture material incentives are constantly employed for achieving economies in the use of fuel and a portion of the value of the fuel is withheld if there is an over-expenditure in the absence of valid reasons. During 6 months of 1981, the savings in fuel at sovkhozes amounted to 7,800 tons. During the 1976-1980 period, the annual savings in fuel during the carrying out of transport operations reached 7-8 percent of the annual consumption.

The UzSSR Minsel'khos /Ministry of Agriculture/ is also exercising systematic control over those problems concerned with the rational utilization of fuel and energy resources. Here, in addition to the ministry's workers, a considerable contribution towards economizing in the use of fuel and lubrication materials is being made by the republic normative-research station of the republic's Minsel'khos. Its functions include checking upon the correctness of preparation of the technological charts, including for mechanized operations, during which control is exercised over the use of the planned norms for diesel oil consumption. During the first 6 months of 1980 alone, this station checked the technological charts of 330 sovkhozes and corrections were introduced into 68 of them. Raised fuel consumption norms were called for in the plans for 36 types of operations. On the whole, the standard economy (lowering of expenditures in the plan) amounted to 275 tons of diesel fuel.

On farms of the TaSSR Minsel'khos, a great amount of attention is being given to improving the technology for the repair of tractors and motor vehicles and to raising the quality of the repair work being carried out on fuel equipment and on car and tractor engines. Almost every engine that undergoes capital repair work

here is subjected to bench tests for fuel consumption. Special importance is attached to the technical condition of the petroleum-storehouse and electrical economies. During the 10th Five-Year Plan, on the whole for all farms of the republic's Minsel'khoz, a diesel fuel savings of 61,000 tons (each year from 2 to 8.6 percent of the annual consumption) was realized and electric power -- 133.6 million kilowatt-hours (from 2.1 to 14 percent of the annual consumption).

In recent years, considerable improvements have been realized in economizing in the use of fuel and energy resources within the KaSSR Minsel'khoz. During the 10th Five-Year Plan, for example, the savings in diesel fuel for all of the ministry's farms amounted to 307,800 tons, or 3 percent of the overall consumption.

Unfortunately, other examples can also be cited. A formal approach is being employed by the BSSR Minsel'khoz in the planning of consumption norms and tasks in connection with achieving economies in the use of fuel and electric power. In 1981 the farms in Grodno Oblast established a consumption norm for diesel fuel for the carrying out of field tractor work of 8.2 kilograms per standard hectare (average norm -- 7.9 kilograms) and the actual consumption amounted to 6.9 kilograms. The planned consumption norms for diesel fuel for farms in Minsk, Mogilev and Vitebsk Oblasts are clearly too high. It was for this reason that the Minsel'khoz tasks for economizing in the use of black oil were over-fulfilled by a factor of 1.8, diesel fuel -- 1.9 and electric power -- by a factor of four. The republic's Minfin /Ministry of Finance/, instead of submitting proposals to the planning organs for increasing the tasks, refers to the fact that they are being established by the higher organs. The shortcomings in planning the consumption norms for fuel and electric power and also the tasks for economizing in their use are not being analyzed by workers attached to the economic and auditing services of the BSSR Minsel'khoz.

An analysis of land utilization over a period of a number of years in the agricultural ministries of individual union republics reveals that positive experience has been accumulated in the rational use of reclaimed lands and other agricultural lands, the use of which could produce advantages for agriculture in the various republics. For example, during the last 3 years of the 10th Five-Year Plan alone, in the KaSSR Minsel'khoz, the amount of unused land which was formerly in fallow decreased (placed in operation) by 79,200 hectares or by 28.3 percent at state farms throughout the republic. Here a great amount of attention is being given to the irrigated lands. The irrigated lands on each farm are constantly undergoing detailed inspections by the oblast agricultural and aquicultural organs and the institutes of Kazgiprozem and Tselingiprozem. Once unused lands are uncovered, the reasons preventing their utilization are established and thereafter measures are undertaken to accelerate their introduction into operations. The republic's Minsel'khoz and Minvodkhoz /Ministry of Water Management/ are jointly solving those individual problems concerned with achieving more efficient use of irrigated lands.

During the last five-year plan, an economic and thrifty attitude towards the land definitely promoted the fulfillment, by sovkhozes of the KaSSR Minsel'khoz, of the plan for selling grain to the state by 123.1 percent. Approximately 12.8 million tons of grain were sold over and above the plan.

In like manner, farms belonging to the TaSSR Minsel'khoz are utilizing their land in an efficient manner. Here, during the 1971-1980 period, 8,600 hectares of

irrigated land which had not been utilized earlier for various reasons (more than 52 percent of all temporarily unused irrigated land) were placed in operation. The republic's Minsel'khoz is constantly examining questions concerned with the efficient utilization of agricultural lands. They constitute only 7 percent of the entire territory. Thus, strict punishments were handed down here to SPMK-4 workers of the Yavanvodstroy Construction Administration, who during the course of installing closed drainage, failed to remove the upper fertile layer, despite the fact that this was called for in the planning-estimates documentation. Unfortunately, it is only rarely that such a zealous attitude towards the land is observed in the other union republics as well.

The recent restoration by the TaSSR Minsel'khoz of small livestock farms (cattle sheds, sheepyards, adobe buildings and so forth), which were eliminated earlier for various reasons, has been promoted by the efficient use of funds. And this is on a par with mastering the planned capabilities of complexes. In 1980 alone, 20 pig farming and seven poultry raising farms were once again restored on farms of the Minsel'khoz. This experience is deserving of special attention.

Nor can we overlook the fact that the minsel'khoz's of individual union republics are not utilizing in an efficient manner the capital investments being made available for agricultural development. Thus, commencing in 1978, the LaSSR Minsel'khoz ordered and procured imported equipment for the K-850/2 grain storehouses and for the K-750 potato sorting points, which were not installed on the farms and had not been included in the plans for capital construction owing to a lack of planning-estimates documentation. Last year the ministry on two occasions examined the question of a lack of control over the ordering of imported equipment and placing it in operation, but by 1 July 1981 there was already 2.7 million rubles worth of such equipment at 14 farms. By 1 August of this same year, only several farms had commenced installing the equipment.

Discrepancies in the planning of capital construction for this ministry are also to be found at the dairy complexes. Prior to the beginning of 1981, the complexes were only 85.9 percent stocked with animals. There were 12,200 empty livestock billets at all farms of the Minsel'khoz. In addition, by this date only 67.3 percent of the capabilities had been developed, that is, the amount of milk being produced was 100,000 tons less than the planned capability. And at the same time Minsel'khoz is building nine more such complexes for 6,700 livestock billets at a cost of approximately 12 million rubles.

In some instances, in connection with the construction of complexes at sovkhoses throughout the republic, a dispersion of resources and delayed introduction into operations of installations are being observed. For example, a dairy farm has been under construction since 1975 at the Birzgale Sovkhoz in Ogrskiy Rayon at an estimated cost of 2.2 million rubles (for a planned construction period of 27 months). At the beginning of 1982 the remaining estimated cost was 369,700 rubles. If the farm is placed in operation in 1982, then its construction actually took place over a period of 8 years.

An unacceptable dispersion of resources is taking place on farms of the BSSR Minsel'khoz. As a result of the unsatisfactory planning of capital investments in 1981, work on some projects came to a halt, including a marketable milk farm for 800 cows at the Zarya Sovkhoz in Ivatsevichskiy Rayon in Brest Oblast (expenditures amounted to 786,000 rubles), a complex for the production of milk for 1,200 cows

at the Malyshkovichi Sovkhoz in Klimovichskiy Rayon in Mogilev Oblast and others. At the same time, the republic's plans for 1982 called for the construction of six similar installations at an estimated cost of more than 12 million rubles: beef cattle husbandry farms at the Linovskiy Sovkhoz in Brest Oblast (estimated cost of 1.07 million rubles), farms for the fattening of large-horned cattle at the Kormyanskiy Sovkhoz in Gomel Oblast (2.04 million rubles), a complex for the final fattening of livestock at the Sovkhoz imeni Lenin in Vitebsk Oblast (2.56 million rubles) and others.

Full use is not being made of the planned capabilities of existing livestock complexes. By 1 January 1981, the planned capabilities for seven complexes for the raising and fattening of large-horned cattle had been mastered to only 78.2 percent, that is, in a sense 1.5 of the complexes are not producing any output. Only 58.7 percent of the capabilities at milk production complexes have been mastered. And this means that 46,500 less tons of milk are being produced than the figure called for in the plan. On some farms of Glavplemupravleniye and the Belzhivprom and Belsortsemprom trusts, surplus and uninstalled equipment remains on the balances of the enterprises for extended periods of time, equipment which is not being redistributed among the farms and soon becomes unsuitable for use. At seven farms of the mentioned trusts and main administration alone, there were uninstalled briquetting machines, pumps, feed mixers, refrigeration units and other items of equipment valued at 95,800 rubles, which were not required and delivered to the farms during the 1975-1977 period. As a result, for sovkhozes of the BSSR Minsel'khoz as a whole, the amount of uninstalled equipment increased by 84.6 percent during the 1978-1980 period and its value at the beginning of 1981 amounted to 17.8 million rubles.

However, despite the unsatisfactory utilization of livestock complexes, capital investments and equipment, the economic and control-auditing services of the LaSSR and BSSR minsel'khoz's are not undertaking decisive measures aimed at correcting the shortcomings and those guilty of procuring unnecessary equipment. The reasons for halting work on livestock installations at some farms and on new construction at others are not being analyzed. The financial organs of these republics are not providing proper evaluations of the inadequate status of departmental control.

The task of the union republic minsel'khoz's and also the republic financial organs includes exercising control over the effectiveness of utilization by the sovkhozes of their own working capital. This includes: checking upon the proper care of and special purpose utilization of the entire amount of working capital made available to the sovkhozes. An important indicator of the effectiveness of their utilization is the duration of the circulation or turnover rate. The auditing and examination of the financial-economic activities of sovkhozes for a number of years, conducted in the union republic minsel'khoz's by the KRU /Control and Auditing Administration/ of the USSR Minfin, underscore the fact that proper attention is not being given to this indicator. Many specialists believe that it makes no sense to determine turnover rate for working capital in agriculture, since the total amount of the turnover (earnings) is often affected by unfavorable weather conditions. But experience accumulated in control and economic work reveals that the turnover rate for working capital is influenced to a large degree not only by the earnings obtained but also by their special purpose utilization.

In the minsel'khoz's of some union republics, tens and at times hundreds of millions of rubles are being diverted for non-plan needs and this tends to slow

down their turnover rate and lowers the effectiveness of their utilization. For example, by 1 July 1981 115.6 million rubles worth of working capital had been diverted at sovkhoses of the KaSSR Minsel'khoz for non-plan needs (capital construction, indebtedness and so forth) and this constituted 4 percent of the norm for all working capital. As a result, the turnover rate for the working capital slowed down (whereas during the second six month period the total amount of immobilized working capital will not decrease and their average annual amount will be at the 1980 level) by 8.3 days:

$$\frac{115.6 \text{ million rubles} \times 360 \text{ days}}{5.03 \text{ billion rubles}}$$

At sovkhoses of the BSSR Minsel'khoz, 19.1 million rubles worth of working capital, or 2.1 percent of the norm, were immobilized on 1 October 1981. A delay in the turnover rate of 8 days is expected.

The effectiveness of use of working capital will be greatly dependent upon the amount of above-normative supplies of such capital. However this indicator is not be analyzed sufficiently by the agricultural and financial organs of some union republics. The analysis is limited to determining the amount of above-normative supplies of commodity stocks not credited by a bank and then only for agricultural enterprises and organizations which have been checked.

In the methodological instructions for inspecting and analyzing the financial and economic activities of sovkhoses and other state agricultural enterprises, as set forth in Letter No. 73 of the USSR Minfin date 3 April 1973, the proposal is made to focus special attention during the course of analysis "on revealing the above-normative supplies not credited by Gosbank and the reasons for the formation and on developing measures for eliminating them." Commencing with the moment of their publication, individual normative documents were issued which influenced to a considerable degree the definition of the concept of "above-normative supplies" and the economic essence of these supplies not credited by the bank. Let us analyze these problems.

In Letter No. 57-P dated 19 May 1978, the USSR Minfin informed the financial organs that USSR Gosplan had decided to include as above-normative commodity stocks the natural supplies of raw materials, other materials and products, the availability of which exceeds the established norm for production supplies, with the exception of those above-normative seasonal supplies, equipment, imported materials and other materials kept in reserve which are credited by USSR Gosbank and Stroybank /All-Union Bank for the Financing of Capital Investments/. The seasonal supplies at sovkhoses include supplies of seed, feeds, fertilizers, the value of young livestock and livestock undergoing fattening and some others. Hence these supplies cannot be considered as above-normative if they are credited.

However, many farms (sovkhoses, poultry factories and others) presently have considerable monetary funds in their accounts and thus they are not utilizing bank credit. Thus their above-normative supplies will be non-credited. And although some workers attached to the financial organs consider this factor to be a negative one, it nevertheless testifies to the financial well-being of the farms. In such instances, when analyzing the working capital of such enterprises, more attention must be given to their special purpose utilization (presence of working

capital immobilization) and also to the validity of acquiring above-normative supplies: spare parts, solid fuel, packaging materials, construction materials for repair operations and other needs associated with the principal activity, goods of little value and which deteriorate rapidly and so forth.

At the same time, there are sovkhoses which accumulate above-normative supplies of materials used for repair operations and other needs associated with the principal activity and goods of little value and which deteriorate rapidly for large sums of money and which do not achieve any reduction in these supplies. Nevertheless, in accordance with the instruction on short term crediting for sovkhoses, No. 14 approved by USSR Gosbank on 26 February 1979, they are credited with a separate loan account and thus measures must be developed on the farms for lowering the above-mentioned supplies. In this instance the financial organs are obligated to control the dynamics of these supplies, despite the fact that they are credited by bank loans.

These facts indicate that the financial status of sovkhoses is not always normal when the above-normative supplies are credited by loans. But difficulties do not arise in all cases, particularly if these supplies are not credited but rather are acquired by means of funds available in current accounts.

There is still another interesting aspect of the economic essence of above-normative supplies not credited by a bank, an aspect which in recent years has undergone change at the sovkhoses and which is not always taken into account in the analyses carried out by specialists attached to the agricultural and financial organs. Its essence is as follows. When analyzing the above-normative supplies of sovkhose commodity stocks not credited by a bank, it becomes obvious that they are acquired for the most part by means of: the net resources of economic incentive funds; the net surplus profit subject to withdrawal; resources of the centralized reserve fund which were not transferred over to the ministry on a timely basis. It is obvious that this led to financial difficulties. The sovkhoses were unable to utilize the resources of the economic incentive fund in a normal manner and the ministry was unable to perform its function of redistributing the net surplus profit and the reserve fund. Herein lies the negative side of such an economic phenomenon as "above-normative commodity stocks not credited by bank loans."

At the time, this accusatory argument was of some importance and yet experience has shown that the ministry lacked both the resources and the potential for performing one of its important functions: maneuvering the above-normative supplies within its system of farms. Thus the above-mentioned new Instruction No. 14 (See paragraph 9) for the short term crediting of sovkhoses established the following as objects of crediting: redistribution of net profit funds and the withdrawal of the centralized reserve fund. As a matter of fact, credit is now being extended for the monetary resources of the mentioned funds, used by the sovkhoses for acquiring the above-normative supplies (thus the supplies were non-credited).

The instruction changed the attitude towards above-normative supplies not credited by the bank. If analysis reveals that they were acquired by means of net surplus profit or a centralized reserve fund subject to withdrawal, then the sovkhoses will immediately be provided with loans for these funds (for redistribution). If the above-normative supplies were acquired by means of economic incentive funds, then the sovkhoses are obligated to replace the funds so diverted.

Unfortunately, the mentioned changes in evaluating individual phenomena, when analyzing the internal working capital of sovkhoses, were not taken note of in the KaSSR Minfin or in the minfin's of other republics. The ministry workers refer to the fact that in the summary annual reports of the sovkhoses it is impossible to determine the amount of the above-normative supplies not credited by the bank. This is incorrect. They can be used with an adequate degree of accuracy for obtaining such a result. Towards this end, the balance is analyzed: the assets and liabilities for sections IV and V are compared; the resources and expenditures are compared against the sources for capital repair operations; the total amount of the above-normative stable liabilities from Section I is transferred over to Section 3 of the balance.

Thereafter, in accordance with the data cited and taking into account the resources in the economic incentive and special purpose funds and indebtedness to the ministry in terms of net surplus profit and to the centralized reserve fund, a determination is made as to the total amount of funds which must be in the sovkhos accounts. If the actual total amount of the bank accounts is less than the source total established above, then the remaining monetary funds are used by the sovkhoses for forming above-normative supplies not credited by the bank. When analyzing the effectiveness of use of working capital by the sovkhoses and in the interest of avoiding incorrect conclusions and evaluations of the financial status, the workers attached to the economic and control-auditing services of agricultural and financial organs must take into account the mentioned peculiarity when determining the above-normative supplies of commodity stocks not credited by the bank.

In the opinion of the author, in order to intensify the relationship between material incentives for workers at sovkhoses and agricultural organs on the one hand and the effectiveness of use of land, productive capital and material resources on the other, all types of bonus payments must be made directly dependent upon the effective use of land, agricultural equipment and land reclamation funds (in field crop husbandry); upon the effective use of livestock complexes and other productive capital and also upon the proper care of the livestock (in livestock production); upon the effectiveness and special purpose utilization of capital investments and equipment (in construction); and upon the effectiveness of use of working capital and the level of above-normative supplies of commodity stocks (workers attached to the economic services and leaders).

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AGRO-ECONOMICS AND ORGANIZATION

FOOD PROGRAM SUPPORT FROM NON-FERROUS METALLURGICAL INDUSTRY

Moscow SEL'SKAYA ZHIZN' in Russian 24 Sep 82 p 2

/Article by P. Lomako, USSR minister of non-ferrous metallurgy: "Our Common Cause"

/Text/ The enterprises of non-ferrous metallurgy must solve great tasks concerned with implementation of the decisions handed down during the May (1982) Plenum of the CPSU Central Committee. Here we have in mind the need for increasing the production of mineral fertilizers, non-ferrous metals and also other products for agricultural machine building. The network of subsidiary farms must be expanded and the production of high quality agricultural products increased.

The following products and volumes were produced in 1981 for the purpose of satisfying the agricultural requirements: 475,000 tons of phosphate, 84,000 tons of potassium and 2,000 tons of boron-magnesium fertilizers (in a conversion for 100 percent nutrient) and approximately 5 million tons of sulphuric acid for the production of mineral fertilizers and this constituted approximately one fourth of the overall volume produced in the country. Copper sulphate, a highly effective plant protective agent, is being produced at a number of enterprises using the waste products of copper electrolysis.

In the interest of increasing the contribution being made by metallurgists to the country's food program, the collectives of many enterprises resolved to increase the yield of mineral fertilizers and the raw materials for their production, through more complete equipment utilization and modernization and by achieving improvements in the technological processes.

This year the implementation of a complex of organizational-technical measures will enable the branch to fulfill its plan for the production of sulphuric acid and copper sulphate and to create the conditions for subsequently increasing their production. In accordance with the principle underlying the "working competition," close contacts must be maintained between ourselves and the collectives of the Apatit Association and the Fosforit Association at Kingisepp, which are systematically disrupting the deliveries of apatite concentrate and phosphorite meal and also the Ministry of Railways. The schedules for the transporting of freight are dependent upon the latter.

The enterprises of non-ferrous metallurgy are producing many products for the agroindustrial complex which are made from non-ferrous metals and which are being used in agricultural machine building and in the processing industry. Here a leading

role is being played by enterprises engaged in the processing of non-ferrous metals, by plants for secondary non-ferrous metallurgy and also by the hard-alloy sub-branch. The work of strengthening and improving relationships between the collectives of enterprises engaged in producing goods from non-ferrous metals and consumers produces mutual advantages: improvements are realized in the quality and operating characteristics of the agricultural machines and savings are achieved in the use of costly non-ferrous metals.

A great amount of work is being carried out by the Giprotsvetmetobrabotka Institute in collaboration with the Voskresensk Branch of the Scientific Research Institute of Fertilizers and Insect-Fungicides, the VNIIPvtortsvetmet Institute, the institutes of Minsel'khoz mash /USSR Ministry of Agricultural Machinery/ and Minavtoprom /USSR Ministry of the Automobile Industry/, the Mikhaylov plant for the processing of non-ferrous metals and the Tambov plant for sliding bearings. Based upon their recommendations, the production of the non-tin bimetal "steel - AMST" for the bearings of tractor and combine engines and wire for the welding of iron castings for tractors and also for the cold welding under field conditions of cast iron parts for agricultural machines and tractors was organized. Considerable interest is being displayed in new alloys having raised anti-corrosion properties in aggressive mediums for equipment used in the production of mineral fertilizers. For developing the production of alloys on an aluminum basis, alloys which are used in place of cast iron, a great contribution was made by the collectives of the Mtsensk Vtortsvetmet Plant and the Moscow plant for aluminum alloys. During the first six months of 1982 alone, the metallurgical enterprises of Soyuzvtortsvetmet produced several tens of thousands of tons of progressive alloys for the automotive unit plants in Poltava, Ul'yanovsk, Vinnitsa and others. The production of these alloys is constantly increasing.

At the present time, work is being carried out with various enterprises and organizations of Minsel'khoz mash, USSR Goskomsel'khoz tekhnika and USSR Minsel'khoz /Ministry of Agriculture/ in connection with the use of more economical hard alloys. As a result, a metal-cutting instrument has been introduced into operations at the Tashkent, Chelyabinsk and Volgograd tractor plants, where expensive tungsten alloys have been replaced by more economical ones.

Special importance is being attached to the use of durable surface alloys which serve to strengthen the ploughshares and mouldboards of plows, the sweeps of cultivators, the disks of sowing machines and shallow plow machines, the rotor teeth of ditch and trench diggers, the scoops of excavators, the blades of bulldozers, graders, scrapers and others. The service life of parts protected by durable alloys is raised by a factor of five or more. The enterprises of Goskomsel'khoz tekhnika (Remdetal' Scientific Production Association) are employing durable surface materials extensively for the restoration of worn out parts of various agricultural machines.

The production of new types of packaging materials made from aluminum for the canning industry and also the production of aluminum foil will be developed at rapid rates. A promising trend must be that of utilizing precast aluminum structures in the construction of grain and fruit and vegetable storehouses. This will make it possible, with fewer expenditures, to ensure better preservation of the grain and other agricultural products. In conformity with the decisions handed down during the May (1982) Plenum of the CPSU Central Committee, the

ministry is devoting a maximum amount of attention to the production of goods for agriculture. A "green light" has been given for those problems concerned with financing and logistical support.

For realization of the food program, importance is also being attached to developing the subsidiary farms of enterprises, including in the tundra, taiga, semi-desert and alpine zones, where agricultural production has not undergone the required development. The collectives of the branch's enterprises have provided broad support for the initiative displayed by workers attached to the Krasnoyarsk Machine Building Plant imeni V.I. Lenin and the Aluminum Plant imeni 50-Letiya VLKSM, in the development of subsidiary farms and in increasing their support for the rural areas. Raised socialist obligations have been developed and adopted for increasing the production of meat and milk, developing hothouse farms and improving the working and living conditions of workers attached to the agricultural departments of enterprises.

There are 257 sovkhozes, subsidiary farms and hog fattening points operating successfully within the branch. They over-fulfilled their tasks for last year and produced almost 45 million rubles worth of agricultural products. In addition to the funds allocated by the state for workers' supply, the enterprises were supplied with almost 37,000 tons of milk, more than 11,000 tons of meat, 50 million eggs and large quantities of potatoes, vegetables, fruit and berries.

At the Norilsk Mining-Metallurgical Combine, 13 percent of the meat, 43 percent of the eggs, 45 percent of the milk, 56 percent of the vegetables and 93 percent of the potatoes consumed in public catering were produced by the branch's sovkhozes. And last year the Magan subsidiary farm of the Krasnoyarsk Aluminum Plant supplied each worker with the following additional amounts: 11 kilograms of fresh meat, 55 kilograms of milk and more than 100 eggs. The indicators for the subsidiary farm of the Bashkir combine were even higher: here 39 kilograms of meat, 214 kilograms of milk and 584 eggs were produced for each worker.

Successful work is being performed by the collectives of the Noril'skiy Sovkhoz, the subsidiary farms of the Dzhida and Pevek combines, the Gornyyak Sovkhoz of the Uchaly Combine, the Novyy Sovkhoz of the Yakutalmaz Association, the Kommunarovskiy Sovkhoz of the Yenisey-zoloto Association, the subsidiary farms of the Northern Ural'sk Bauxite Mine and the Krasnoturinsk Sovkhoz of the Sverdlovsk urs /administration of workers' supply/.

The supplying of manual and office workers with vegetables and early greens will be greatly dependent upon the development of the hotbed-hothouse economy. At the present time, the branch's farms have approximately 2.6 hectares of hothouse space and this makes it possible to obtain roughly 4,000 tons of vegetables. On the hothouse farms of the Norilsk Combine and the Sverdlovsk urs, 40-42 kilograms of vegetables are being obtained from each square meter. At the same time, the rapid construction of small hothouses is being delayed by the absence of standard plans for their production. It is our hope that the USSR State Committee for Production-Technical Support for Agriculture, the USSR Ministry of Agriculture and the USSR Ministry of the Fruit and Vegetable Economy will accelerate the development of standard plans for hothouses and particularly for the regions of the Far North.

In increasing the production of meat, a great role will be played by hog fattening points attached to urs's and industrial enterprises, where food scraps are utilized

for the most part. Last year, almost 3,500 tons of meat were obtained at such points. This certainly represents a worthy addition! The best results were achieved by the collectives of the Yakutzoloto Association urs, the Murmansk urs, the Zhitomir Trade Office, the Rezh Nickel Plant and the Dal'polimetall Association.

In view of the experience that has been accumulated, we intend to create such fattening points at each enterprise and organization and to build large-scale and highly mechanized hog fattening farms on a share basis.

The potential for developing fish-breeding ponds is being realized.

During this present five-year plan, the branch's enterprises, sovkhoses and subsidiary farms must carry out a great program of construction and modernization. The following facilities must be placed in operation: cow barns and pigsties for 19,800 head, poultry houses for 282,000 head, facilities for 12,000 head of sheep and hothouses for 110,000 square meters of space. As a result, in 1985 we plan to obtain the following increases in output from subsidiary farms compared to 1981: milk -- by one third, meat -- by 38 percent, eggs -- by 55 percent and potatoes and vegetables -- by 19 percent.

In order to carry out the assigned tasks, it will be necessary to strengthen the feed base for livestock production and poultry raising. Land not being employed for agricultural purposes is being made available to our farms and in addition these farms are developing floodplain meadows and other waterlogged lands and they are carrying out land reclamation work. But we lack specialized equipment and thus we look for assistance from the Ministry of Land Reclamation and Water Management and also from the agroindustrial associations in the various areas.

The branch's subsidiary farms are in need of personnel and agricultural equipment. In particular, they lack machines for carrying out agrotechnical work on meadows and pastures and feed harvesting machines and equipment for livestock farms.

A sharp increase is required in the deliveries to the subsidiary farms of pedigree young stock and high quality seed. In conformity with the decisions handed down during the May (1982) Plenum of the CPSU Central Committee, all of these problems must be solved within the framework for developing the country's overall agroindustrial complex.

It is understood that the successful fulfillment of the tasks for the 11th Five-Year Plan on the subsidiary farms requires an expansion in housing and cultural-domestic construction. Thus, 32,000 square meters of housing space, kindergartens and nurseries for 1,700 children, clubs for 2,100 and schools for 6,000 students will be built during the current five-year plan.

We will build these facilities in remote rural regions using our own resources. A reliable production-technical base combined with improved working and living conditions for the rural workers will be of great assistance in retaining personnel in our agricultural departments.

Many problems are waiting to be solved. The time is at hand for improving the system of material incentives and wages for workers attached to subsidiary farms, particularly leading workers and specialists at newly created and small subsidiary

farms. It is considered advisable to have the livestock breeders covered by the same system and conditions for adding increments to wages for continuous length of service and to provide them with the same additional vacation periods established for tractor operators in the respective zones.

The USSR Ministry on Non-Ferrous Metallurgy has developed organizational-technical measures for carrying out the decisions handed down during the May (1982) Plenum of the CPSU Central Committee and the country's food program as approved during the Plenum. The collectives of all of the branch's enterprises and organizations are devoting all of their efforts towards ensuring the successful implementation of the decisions and the program.

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AGRO-ECONOMICS AND ORGANIZATION

DEVELOPMENT OF SUBSIDIARY INDUSTRIAL ENTERPRISES IN KARAGANDA AREA

Alma-Ata SEL'SKOYE KHOZYAYSTVO KAZAKHSTANA in Russian No 5, May 82 pp 31-32

/Article by Ya. Pazenko, 1st deputy chairman of the Executive Committee of the Karaganda Oblast Soviet of People's Deputies: "Development of Subsidiary Farms -- A Necessary Task"/

/Text/ In the decisions handed down in recent years by the Communist Party and Soviet Government concerning economic problems, a great amount of attention has been given to carrying out the food program, aimed at completely satisfying the population's requirements for food products.

The field and farm workers in our oblast, similar to all Soviet people, greeted with great enthusiasm the decisions handed down during the November (1981) Plenum of the CC CPSU and the 6th Session of the USSR Supreme Soviet and the speech delivered during the Plenum by the general secretary of the CPSU Central Committee Comrade L.I. Brezhnev and they are striving to make a worthy contribution towards carrying out the tasks advanced during the 26th CPSU Congress.

Many of the oblast's sovkhoses, by skilfully employing the available reserves, completed the 1st year of the 11th Five-Year Plan in an organized manner. More than 38 million poods of grain were delivered to the granaries of the homeland. The plan for the procurement of all types of agricultural products was successfully fulfilled.

Even greater tasks will confront the oblast's farms during the coming years. The agricultural workers have vowed to raise the average annual volume of agricultural products by 14 percent. The oblast's population will be supplied with internally produced potatoes and vegetables. The average annual grain yield at all categories of farms will be increased to 1.0-1.1 million tons, potatoes -- to 223,000 tons and vegetables -- to 84,700 tons. By the end of the five-year plan, meat production (in live weight) will amount to no less than 120,000 tons, milk -- 283,000 tons and eggs -- 413 million. Over the five-year period, the state will be supplied with no less than 2.65 million tons of grain, 350,000 tons of potatoes, 312,000 tons of vegetables, 380,000 tons of livestock and poultry and 13,250 tons of wool. Haylage procurements will reach 650,000 tons, silage -- 4 million tons and hay -- 4 million tons.

In addition to the kolkhoses and sovkhoses, a considerable role in solving these tasks may be played by the agricultural departments of industrial enterprises and the private plots of manual and office workers and other citizens.

During the July (1978) Plenum of the CPSU Central Committee, emphasis was placed upon the importance being attached to the subsidiary farms of industrial enterprises. In the report delivered by the general secretary of the CPSU Central Committee Comrade L.I. Brezhnev before the 26th party congress, it was pointed out that the subsidiary farms of industrial enterprises must be provided with maximum assistance. They can and must be a reliable aid for increasing the production of meat, milk, vegetables and other products and for improving the supply of food goods for manual and office workers.

In carrying out the instructions of the Communist Party and Soviet Government in our oblast, a definite amount of work has been carried out aimed at developing the agricultural departments of industrial enterprises, the horticultural and gardening collectives and the private plots of citizens. The oblast party committee and the oblast executive committee have adopted a joint decree calling for the organization of new subsidiary farms, improvements in the work of those created earlier, a strengthening of their logistical base, improvements in the organization of labor and an increase in the production of goods.

The executive committees of oblast, municipal and rayon soviets of people's deputies are exercising constant control over those problems concerned with the development of subsidiary farms at industrial enterprises and organizations and furnishing them with practical assistance. In September 1981, during a session of the oblast soviet, a discussion took place on the question "The work of the oblast's soviet and economic organs with regard to the further development of subsidiary farms at enterprises and organizations."

A special committee of the oblast committee of the Communist Party of Kazakhstan and the oblast executive committee has been created which, together with other committees, is studying those questions associated with the production of agricultural products at subsidiary farms. Thus, in March of this year, a review was undertaken during a meeting of the committee of the question "The work of the Karagandatsement Association, the Karagandairtyshkanalstroy Administration and the Karagandashakhtostroy Combine in connection with the creation of subsidiary farms."

In conformity with the decree of the Central Committee of the Communist Party of Kazakhstan and the republic's Council of Ministers concerning the further development of subsidiary farms of enterprises, organizations and institutes in our republic and oblast, the task has been established of producing the following products and volumes during the years of the 11th Five-Year Plan: 8,520 tons of meat (in live weight), including 560 tons in 1981, 6,950 tons of milk with 1,000 tons being produced last year, potatoes -- 8,080 and 1,500 tons respectively and vegetables -- 5,440 and 580 tons.

The Bureau of the Oblast Committee of the Communist Party of Kazakhstan and the Executive Committee of the Oblast Soviet of People's Deputies have established specific tasks for all enterprises and organizations with regard to the production of agricultural products for the five-year plan on the whole and for each year separately.

This year there are 30 subsidiary farms in operation throughout the oblast. Of this number, 16 were created in 1981. Nine subsidiary farms and 12 fattening sites have been organized on the basis of consumer cooperation. The subsidiary farms have been assigned 161,490 hectares of agricultural land, including 14,425 hectares of arable land.

The following data testifies to the manner in which the subsidiary farms of industrial enterprises performed last year. They produced 6,396 tons of grain, of which 1,028 tons were sold to the state, 295 tons of potatoes, 310 tons of vegetables and 1,088 tons of meat (in live weight). The annual task for meat production was fulfilled by 102.6 percent, milk -- 1,135 tons against an annual task calling for 1,000 tons (113.5 percent), 1.65 million eggs, 11.4 tons of fish and 844 coypu pelts. All of these indicators are considerably higher than those obtained during 1980.

This year there are 3,550 head of large-horned cattle, including 778 cows, 5,665 hogs, 2,663 sheep, 49,000 head of poultry and approximately 1,800 coypus being maintained on subsidiary farms. Compared to 1980, the number of large-horned cattle has increased by 1,746 head, hogs -- by 2,171, sheep -- by 1,553 and horses -- by 71 head.

The logistical base of the subsidiary farms has been strengthened. There are 20 cow barns, four sheepyards, 20 pigsties, two wild animal rearing farms, five poultry houses and seven hothouses. The machine-tractor pool includes 280 tractors of all types, 81 grain combines, 15 sowing machines, 88 motor vehicles and five sprinkling units.

Some subsidiary farms of enterprises have achieved fine results in their work and with each passing year they are increasing their proportion of the food being made available for their worker collectives. Thus a great amount of work is being carried out at the Karagandaugol' Association. The development of the Shakhtinskiy Sovkhoz and the creation of new subsidiary farms will make it possible to increase the production of meat from 218 tons in 1980 to 1,000 tons in 1985, milk -- from 730 to 1,500 tons respectively and eggs -- from 1.6 million to 4 million. More than 3 million rubles were invested last year for strengthening the logistical base. As a result, facilities were placed in operation for 540 sows, a feeding stable for 1,000 hogs, a cow barn for 200 head and a base for 300 head of young stock. The construction of a poultry house for 36,000 chickens is nearing completion and an incubator and slaughtering shop are being built. The administrative and domestic building of a former mine is being re-equipped for a broiler factory for 60,000 head of broilers for one-time maintenance, with an annual turnover of 180,000 head of broilers.

The 1981 livestock production indicators of the Shakhtinskiy Sovkhoz were high. The average milk yield per cow was 2,600 kilograms. Approximately 246 tons of meat (in live weight) and 866 tons of milk were produced. All of these and other products were used for improving the public catering services for the miners. Many similar facts could be cited for the oblast.

The economic advisability of creating subsidiary farms of industrial enterprises stems from the fact that they make it possible to utilize in the production process those material and labor resources which are not used at large-scale agricultural enterprises. First of all, these farms use mainly unproductive (in our case -- quite often saline soil) lands that are not being utilized by the kolkhozes or sovkhoses or lands assigned to enterprises for further development. They utilize the food scraps of dining halls for feeding to their livestock.

The industrial enterprises make available exhaust steam and other "unproductive" heat for the warming of hothouses, motor transport, other equipment and manpower.

Hence the expenses initially incurred for the creation of such farms are repaid rather rapidly.

Hog fattening points organized within the public catering administrative system have proven themselves to be profitable. They are maintained on the balance of the 1st and 2d trusts of dining halls and restaurants for the city of Karaganda. Approximately 400 hogs are fattened using mainly food scraps that are collected at public catering enterprises and shipped to hog fattening points by means of specialized transport. Isolated areas and special receptacles are made available for collecting the food scraps. The administration's plan for the collection and delivery of food scraps during 1981 was fulfilled by 102 percent. Against a plan calling for 800 tons, 810 tons were supplied. As a result, 347 quintals of pork (in live weight) were produced during the year. By the end of this current five-year plan, the number of hogs will have been increased to 900. Towards this end, the public catering administration has planned the construction of a new fattening point for 400 head of hogs.

The subsidiary farm of the Stroyplastmass Combine was created in 1978. During the ensuing period, livestock facilities have been built for 700 hogs, 100 head of large-horned cattle, 1,500 coypus and a grain storehouse. During the years of the 11th Five-Year Plan, the plans call for the production of 400,000 rubles worth of agricultural products. Taking into account growth in the number of animals, one additional pigsty for 500 head and a cow barn for 100 head will be placed in operation.

The management of the Karaganda Passenger Motor Transport Production Administration is setting a fine example with regard to displaying a creative attitude towards the work. In 1981, based upon a decision handed down by the oblast executive committee, 2,800 hectares of land which belonged formerly to the Semiz-Bug Mine in Ul'yanovskiy Rayon were allocated for the purpose of organizing a subsidiary livestock production complex. The executive committee based its thinking upon the availability of able-bodied workers in the area.

Commencing with the very first day, a chief consideration was that of creating its own feed base for the future development of livestock production operations. In the spring of 1981, 250 hectares of virgin land were plowed up, of which amount 70 hectares were sown in corn for green feed and 180 hectares were allocated for spring barley. Work was carried out in the autumn aimed at increasing the amount of arable land.

During the summer they employed their own resources for delivering 500 tons of hay, 130 tons of straw, 100 tons of silage to the wintering area for the livestock and they harvested 88 tons of barley. At the same time, livestock production facilities were under construction. Two cowbarns for 250 head of large-horned cattle were placed in operation and supplied with electric power. A feed preparation shop with the required equipment, a grain storehouse and a grain threshing floor were built. Following the completion of all of this work, 400 head of large-horned cattle were procured from the population. Approximately 298,000 rubles of capital investments were employed for developing the subsidiary farm and a loan of 152,000 rubles was obtained from Gosbank for acquiring livestock.

For 1982 the plans call for the number of large-horned cattle to be increased to 1,000 head and at the end of the year to sell meat obtained from the fattening of

83 young bulls born in 1980 to workers attached to the administration's motor vehicle enterprises. Two block hothouses were in operation in 1981, each having a usable area of 500 square meters. As a result, 25 quintals of vegetables were sold.

At the Karaganda Metallurgical Combine planning-estimates documentation was prepared, financing was opened and construction is being carried out on a block of winter hangar hothouses. Of 10 under construction, two have already been placed in operation. Thirty four tons of vegetables were produced in them. The construction of the entire block will be completed this year.

Planning-estimates documentation has been developed at the combine for the construction of a rabbit breeding complex for brood stock numbering more than 1,000. A loan in the amount of 100,000 rubles has been made available for building the facilities. One rabbit farm will be placed in operation this year.

Many such examples could be cited. Beyond any doubt, the agricultural departments of enterprises must utilize first of all their internal reserves. However, an increase in the scale of production arouses many difficulties and problems that are not easily solved. The chief one is that of creating an adequate machine pool. Although the subsidiary farms of enterprises must be supplied with agricultural equipment, other items of equipment and spare parts, and in the manner established for kolkhozes and sovkhoses, nevertheless such action is not being taken. Beyond any doubt, the oblast committee of the Communist Party of Kazakhstan and the oblast executive committee are striving to furnish assistance to the enterprises in developing their subsidiary farms. We are exercising firm control over the distribution of equipment for satisfying the requirements of subsidiary farms and in the process we are paying strict attention to the land areas available and to the character of the agricultural work being carried out. We tasked the oblast association of Goskomsel'khoztekhnika with summarizing the requests of the subsidiary farms of industrial enterprises for acquiring agricultural equipment and to present the information for examination by the executive committee. This will make it possible to coordinate in a timely manner the distribution of the limits allocated.

However, it cannot be stated that many of the difficulties can be resolved here in the oblast. Owing to the fact that some of the republic's ministries are not making capital investments available in a timely manner, use is not being made of the land areas allocated. For example, more than 4,500 hectares of agricultural land were allocated in 1981 to Glavtsentrostroy /USSR Main Construction Administration in the Central Regions/ of the Ministry of Construction of Heavy Industry Enterprises/ for the Kazakh SSR. This land is not being used, the preparation of the planning and estimates documentation is being dragged out, construction work has still not commenced on the production facilities and in the meantime 60 tons of meat must be produced in 1982.

The executive committee of the oblast's soviet of people's deputies is presently attempting to uncover reserves and it is undertaking measures aimed at further increasing the production of meat, milk, potatoes, vegetables and other products through the further expansion of existing subsidiary farms and the creation of new ones, improving the use of land made available to the subsidiary farms, strengthening the feed base, raising the productivity of livestock operations and the cropping power of the agricultural crops and accelerating the construction of livestock production facilities, hothouses and storehouses for potatoes and vegetables. The executive committee approved measures for improving public catering and developing subsidiary farms at industrial enterprises throughout the oblast. The oblast

agricultural organs and rayon executive committees have been tasked with furnishing assistance in developing complete plans for intra-farm land management, with anti-erosion organization of a territory, for each subsidiary farm of large industrial enterprises. In order to expand those hothouse-hotbed farms which utilize exhaust steam, prefabricated hothouse structures must be supplied.

Measures will be undertaken to return land used by industrial enterprises of the extractive and metallurgical branches for refuse areas and for various production waste products, by means of recultivation for the purpose of expanding existing subsidiary farms and creating new ones. Concern is presently being displayed for the problem of allocating land areas and creating eight new subsidiary farms, including at the Temirtau Foundry-Mechanical Plant, at an operational enterprise of the Irtysh-Karaganda Canal, a wall materials association, the oblast association of Goskomsel'khoshtekhnika, the grain products administration, the Karaganda specialized administration of the Kazteploizolyatsiya Trust and at others.

The agricultural department of industrial enterprises, institutes and organizations throughout the oblast will grow stronger and undergo further development.

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